DOCUMENT RESUME

ED 324 448 CE 055 965

TITLE Information Technology for Distributive Organisations. Consultancy and Training Provision for Smaller Businesses.

INSTITUTION Distributive Industries Training Trust, Herts (England).; Further Education Unit, London (England).

REPORT NO ISBN-1-85338-196-9

PUB DATE 90

NOTE 113p.

PUB TYPE Reports - Research/Technical (143) -- Tests/Evaluation Instruments (160)

EDRS PRICE MF01/PC05 Plus Postage.

DESCRIPTORS Continuing Education; *Distributive Education; Education Work Relationship; Foreign Countries; *Information Technology; Postsecondary Education; Retailing; School Business Relationship; *Small Businesses

IDENTIFIERS *United Kingdom

ABSTRACT

This document describes a project designed to identify a role for continuing education colleges in Great Britain in supporting the growing application of information technology (IT) in the distributive trades, with particular reference to businesses with fewer than 50 employees. Following an introduction, section 2 describes the questionnaires sent to small businesses, colleges, trade associations, and private training agencies and the seminar conducted to address the needs identified by the questionnaire. Section 3 highlights the areas where planning and support are most needed in any program of short courses. Section 4 describes a program and materials for a theoretical short course that can serve as a model for designing such a course for a given market. Appropriate learning materials are contained in section 5 and additional assignments are in section 6. The questionnaires appear in appendices 1 and 2. Other appendices contain descriptions and/or lists of alternative funding sources, software and hardware options, suggested periodicals, 11 references, and addresses and phone numbers of organizations that may act as resources. (CML)

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INFORMATION TECHNOLOGY FOR DISTRIBUTIVE ORGANISATIONS

CONSULTANCY AND TRAINING PROVISION FOR SMALLER BUSINESSES

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INFORMATION TECHNOLOGY FOR DISTRIBUTIVE ORGANISATIONS

CONSULTANCY AND TRAINING PROVISION

FOR SMALLER BUSINESSES

AN FEU PROJECT SPONSORED BY THE
DISTRIBUTIVE INDUSTRIES TRAINING TRUST

ACKNOWLEDGEMENTS

A document of this size and scope is inevitably the product of a great deal of effort by a large number of people. We would like to express our particular appreciation to the following whose contributions were beyond the normal call of duty.

Members of the project steering group

Bernard Barclay	ex National Economic Development Office
Chris Crouch	Distributive Industries Training Trust
Janet Davidson	Royal Society of Arts
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Indira Kugraprasad	Elizabeth Wood
Philip Murley	Peter Youern
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Additional secretarial support

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Finally, our especial thanks are due to Colin Walker, FEU Development Officer, for his unflagging support and encouragement throughout the project, and to Peter Woods for the excellent job he made of the final editing.

Graham Banfield
Dafydd Thorne
Project Workers
College for the Distributive Trades

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FOREWORD

This project sought to identify the role further education (FE) colleges can play in supporting the growing application of information technology (IT) in the distributive trades, with particular reference to smaller businesses, i.e. those with fewer than 50 employees.

Small retailers are at a disadvantage as regards IT. Because profits are limited and time is short, many feel unable to investigate the possibilities of using IT, thus losing a possible asset in their effort to survive the trend to larger outlets.

In many FE colleges, distribution tutors, where they exist, often have limited expertise in IT applications, while many IT tutors cannot be expected to be experts in retailing, particularly as regards the attitudes of retailers in small organisations. The College for the Distributive Trades (a constituent college of the London Institute) is an exception to this in that it has tutors who specialise in IT for retailers. This document has been produced by the college for FEU as a way of assisting FE colleges enter a market which would otherwise be closed to them.

Sections I to III

- summarise the research carried out to identify the training needs of such firms;
- offer guidance to colleges acting as consultants/trainers to help traders meet those needs.

Sections IV to VI

- present a programme, with learning materials, for a short (12 hour) training course for managers, which colleges may use as a model, adapting it to meet local needs;
- include an additional set of assignments which can be used in the short course.

In addition, it is hoped that this project will encourage course designers to incorporate the latest developments in IT in the whole range of education and training programmes provided for the distributive trades.

The detailed results of the questionnaires are not included in this report but are available on request from FEU.

FEU would like to hear from colleges that have successfully integrated IT across distribution courses.

I. INTRODUCTION

The distributive trades are made up of more than 275,000 retail and wholesale businesses and had a turnover of £150 billion in 1986. They employ around three million people and an average of 50% of the difference between sales and cost of goods is labour cost. The productivity of the industry still depends very significantly on the skills of the workforce and how they are used.

The industry is very diverse in size of businesses, the goods they sell, the methods they use for trading, and the way in which they are organised and operated. In retailing alone there are some 200,000 single-outlet businesses, while at the other end of the scale some major businesses have more than 1,000 outlets.

The highly competitive nature of the industry has accentuated the importance of a business's ability for quick and detailed analysis of its operations. IT is helping to meet this need.

Among the small businesses, 250,000 or so in total, the potential is largely undeveloped although the number of users of new technology is growing.* This project looks at that potential and the part FE can play in realising it.

Businesses may use IT at three levels (see Figure 1). To give an example:

- *a transaction* might involve recording the number of sales per item;
- *day-to-day control* might involve reordering the item;
- *longer term planning* might involve a decision to drop the item or change the supplier.

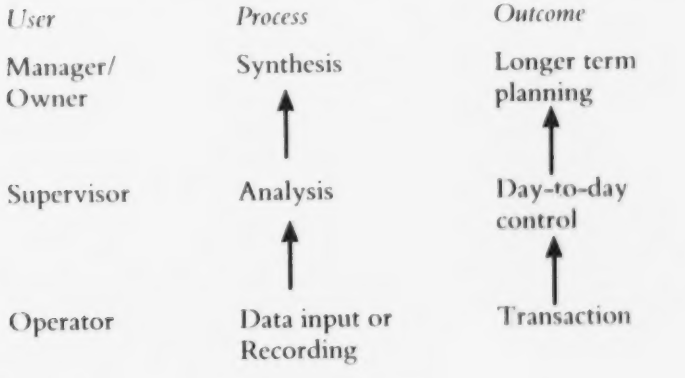

Figure 1

The three categories of user may be an artificial distinction in some cases, in that the owner of the smallest business may fulfil all three roles.

* *Technology and Training in the Distributive Trades*, Distributive Trades EDC, 1987

Research shows that most small firms using IT do so at the lowest level (in their accounting procedures, recording transactions), but those which plan to make further applications are looking at the second level (stock control procedures, for example).

This document focuses on training at the middle level — day-to-day control — in the hope that success here will encourage owner/managers to:

- identify a still higher level of usage for themselves and their firms;
- recognise the need for their operators to acquire 'hands on' skills from professional trainers.

Either or both of these outcomes could result in colleges of FE offering further consultancy and training help.

II. THE RESEARCH

Procedure

Research for the project was conducted in two stages.

Stage one: Two questionnaires (Appendices I and II) were sent, the first to small businesses and the second to colleges and other training providers, including trade associations and private agencies.

Stage two: Arising from the responses to the questionnaires:

- a seminar was run for respondents to the second questionnaire with significant experience of training for IT distribution, to explore ways of responding to the needs identified;
- a number of respondents to the first questionnaire were contacted by telephone for more detailed information.

The aims of the research were to find out:

- to what extent small businesses use IT;
- what training is available and used by them;
- what plans they have to install IT in the future.

The stages

The questionnaire to small businesses yielded the following information from 177 respondents:

- IT applications so far are concerned with electronic cash registers and administrative tasks, though demand is likely to change towards systems in stock control and handling.
- Future training needs will include:
  - for managers: selecting suitable applications;
  - for staff: operating stock control systems.
- Formal staff training is not considered essential.
- Colleges are not used to any great extent to provide training, and the overwhelming majority of respondents are satisfied with the training received from other sources.
- Many see no advantage in IT applications; almost one-fifth of the respondents do not use IT.
- More than half do not plan to adopt any new applications during the next two years.

The questionnaire to colleges and other training providers yielded the following information from 36 organisations:

- All the respondents offer some type of training in IT.
- The majority offer courses with some IT content specifically to Distribution students.
- Distribution students are most commonly offered qualifications validated by BTEC and C&G.

- Students on general Business Studies courses are twice as likely to be offered the RSA Certificate in Computer Literacy than are Distribution students.
- The most common IT provision is in the form of short courses or as part of a longer (one or two years) course in general Business Studies.
- Very few providers offer an IT consultancy service to companies in Distribution, although such a service is commonly offered to other types of business.
- Most respondents are interested in obtaining further teaching aids, in particular assignments, consultancy packages, and lecture materials.
- Information on staff development, course design and course marketing would also be of considerable interest.

The findings of Stage two corroborated those of the two questionnaires and the NEDO report quoted earlier.

Conclusions

The broad conclusions from the two stages were that:

- Many small businesses are interested in exploiting the possibilities of IT.
- They do not look to colleges of FE as 'natural' providers of training in IT.
- Existing programmes and qualifications are not relevant to their needs.
- Many colleges lack the expertise to offer the type of specialised advice and training required.

Recommendations

The recommendations which form the basis of the rest of this document are that:

- Colleges could and should exploit the substantial gap in IT training for the small distribution business.
- Colleges wishing to offer such training should begin with short courses for managers and proprietors, based on clearly defined needs.
- Such courses are likely to be similar to the model put forward in Section IV of this document, and will include:
  - information about IT and the systems available;
  - applications in distribution, with particular reference to the small business;
  - 'hands on' experience of available packages;
  - assistance in selecting systems.
- When planning the promotion and delivery of such courses, colleges will need to consider the implications of:

- identifying and creating a development team;
- conducting local research;
- making the courses and consultancy financially self-supporting;
- marketing and promoting the courses;
- pre-course consultancy;
- providing adequate resources;
- post-course consultancy;
- accreditation.

Section III looks at the planning stage.

III. PLANNING

Though Section IV proposes a training programme to introduce IT, it cannot be used without careful planning and support, both internal (resourcing and staff development) and external (creating and maintaining links with clients). Indeed, the programme itself may need to be adapted to suit local requirements.

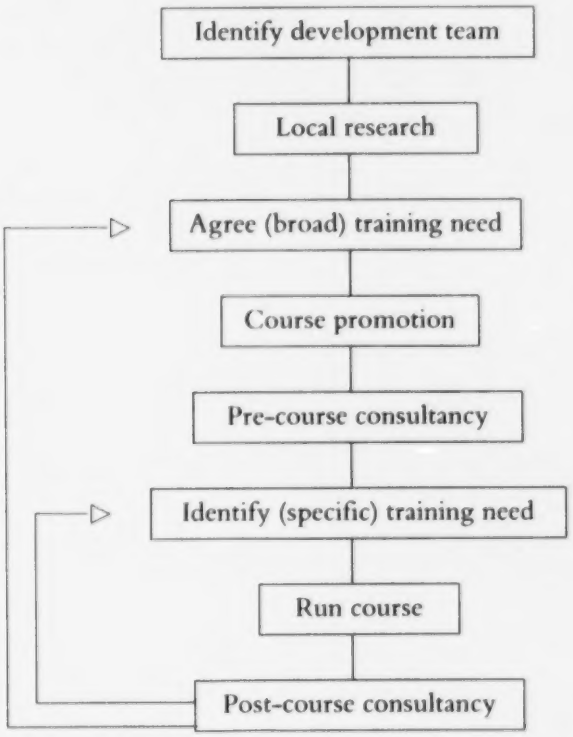

Figure 2: Planning

This section highlights the areas where planning and support are most needed and offers advice. Figure 2 shows one model of activities, but omits elements which are continual rather than sequential, such as team development and resourcing.

Identifying the development team

Before the scheme can get under way, a small team has to be identified to ensure its progress. Other colleagues may be co-opted as it gains momentum.

Co-ordinator

In the first instance, it is essential to identify someone with responsibility for:

- raising awareness about the scheme, in and outside the institution;

- acting as principal contact with clients;
- ensuring that the programme, once agreed, runs smoothly and meets its stated objectives;
- guaranteeing standards of administration, accommodation, equipment, learning materials and staff performance;
- exploiting post-course consultancy and training opportunities.

Other staffing

In most cases, colleges will need to create a special cross-disciplinary team drawn from, for example, distribution, computing, business studies and/or accounting staff. Valuable contributions may be made by visiting lecturers from the business sector, but their time is likely to be limited.

Thus you may have a group of people who have never worked together before with, in the first instance, some of the standard reactions of anxiety and suspicion. Time has to be found for meetings to:

- break down possible interdisciplinary rivalry;
- encourage a respect for and understanding of one another's expertise;
- identify and distinguish individual and shared responsibilities in consultancy and course delivery;
- agree the course programme, content and learning methods;
- monitor and maintain standards throughout the scheme.

This investment in human resources may well be expensive in the short term, but the costs should be absorbed by the increased revenue arising from the scheme. It may also encourage non-IT specialists to integrate IT within courses they are involved with.

Appropriate skills development

The following proposals should assist the removal of barriers between disciplines:

- training together in interviewing techniques specific to the scheme;
- sharing expertise to produce a bank of open-ended questions to use in consultancy;
- working through the training material together — as well as enhancing team skills, the process will validate the content of the course in advance of its use;
- workplace experience for team members;
- visits, as observers, to local businesses using IT, IT suppliers, and business exhibitions.

Astute use of the LEA Training Grants Scheme could help keep costs down.

Conducting local research

Whether or not you have a network of contacts with individual firms, it is advisable at this stage to get in touch with some local agencies such as:

- business clubs;
- Chambers of Commerce;
- local authority business research centres;
- trade associations (some with regional offices);
- co-operative development organisations;
- the Small Firms Service;
- training centres funded by the Training Agency;
- DTI advice centres for small businesses.

Training and Enterprise Councils (TECs) should ultimately prove a prime forum and agent for change at local level, building relationships between interest groups and including in their membership representatives from employers, education, voluntary bodies and trades unions.

It should not be necessary to carry out an exhaustive study to compare national findings with local conditions, but you will need:

- information about their membership and contacts;
- facts about the implementation of IT in the local business community;
- views on the resources they would be willing to commit to obtaining IT training;
- reactions to the training programme proposed in this paper.

In the light of discussion with key groups, it should be possible to make any adjustments to the programme and also establish a price before contacting individual firms.

Making courses and consultancy financially self-supporting

The distinction between costing (on which the LEAs will give guidance) and pricing needs to be clear — in other words, the distinction between what it costs you to offer the service and the charge to the clients.

Colleges sometimes under-price their products and so deter potential clients who may fear that if something is cheap it cannot be worth buying. On the other hand, remember that the profit margins of the small business may be very tight, and too high a fee may also be a deterrent.

Traders tend to think in terms of job cost rather than time cost, so you should quote for the job, having assessed the number of hours it will take. Thus, 'For £*x* we will give you *y* service.'

It is suggested that the first half-day of preliminary consultation should be free, whether or not the particular client subsequently takes part in the training scheme. The cost should be absorbed in the total for the training course.

If you make follow-up visits to clients after the course, you will need to distinguish between a visit to validate the course (the cost of which is built into the course fee), and one which is a consultation (the price of which is additional to the course fee — see 'Post-course consultancy' in this chapter).

Alternative sources of funding

Although one of the aims of this project is to encourage colleges to develop financially self-supporting packages, extra funding does exist to support research and development. Further, there are grants to help employers who wish to use consultancy services, establish collaborative projects, or use existing training. It is an important part of the colleges' consultancy role to know what grants exist for clients and to give advice based on that information.

The sources and pattern of such funding are always shifting, but details of provision at the time of writing are shown in Appendix III.

Marketing and promoting the courses

There are three categories of potential clients:

- those who already use the college;
- those who do not use the college but are accessible via other associations;
- the 'isolates' who neither use the college nor belong to associations.

Those who already use the college

Colleges which have a marketing manager and/or marketing committee may seem best placed to reach existing contacts, whether face-to-face, by telephone, or using mail shots. But, even without a formal marketing structure, teaching staff have contacts with managing agents, work placement providers and students' employers. However, you may need to look beyond the normal contact point to identify someone within the firm with an interest in IT who can become the 'product champion'.

Those who do not use the college but are accessible

Probably the most productive way of selling a college's services is through organisations such as those listed earlier in this chapter, whose recommendation is valued. In addition, *The Small Business Guide* lists 2000 organisations which offer help to small firms and would refer any enquiries to colleges. *The Retail Directory* is another valuable source of information.

The 'isolates'

The majority of small businesses do not belong to associations and may not be aware of sources of help — very few of the respondents to the first questionnaire use FE or HE colleges. You might, therefore, consider using handbills (the post office offers a

delivery service for such items). Local newspapers and radio are also cheap media for advertising.

Colleges differ enormously in the facilities and resources available for promotional activity, but for all three sources of clients you will need:

- an initial mailing shot;
- an information pack to support any preliminary enquiries.

Promotional materials have to be punchy, positive and properly targeted at the market sector you wish to serve. Bear in mind the quality of glossy promotional material with which yours will be competing, not least from private, highly market-oriented trainers.

Low investment in training often stems from a relunctance to see its contribution to efficiency and hence profitability, but traders are susceptible to suggestions that they could be missing out on opportunities that are being exploited by their competitors.

Initial mailings should:

- introduce the benefits of IT to the small firm;
- offer a preliminary, free consultancy;
- outline training opportunities;
- avoid too much detail;
- avoid technical and FE jargon;
- identify contacts for further information;
- provide a response slip and freepost envelope.

The information pack will vary in content. Most economical is an attractive multi-purpose folder whose contents can be interchanged as required.

Pre-course consultancy

There are four stages in the development of relationships with clients:

- the initial contacts described already — 12 to 16 weeks before training;
- pre-course consultancy, when clients are trying to decide on suitable applications of IT to the business and the correct equipment (more than one third of our respondents found difficulties here, a finding borne out in other projects*) — 4 to 6 weeks before training;
- attendance on a course;

* *Small Computers in Small Companies*, Department of Marketing, University of Lancaster. *The Bookshop Computer Guide*, Booksellers' Association, 1988

- post-course consultancy, when clients seek to apply what has been learned on the course (the Lancaster University project shows that only half the users of IT regard their new systems as successful) — 6 to 12 weeks after training, and beyond.

It is clearly not enough for colleges to offer IT courses in isolation from the businesses they are meant to help, though inevitably there will be clients who enrol for a course without preliminary consultancy.

After the first contacts, the act of going into firms to offer advice will not only result in a training programme closely tailored to local needs but is also a self-marketing exercise. However, any course changes at this stage will be in emphasis rather than substance if the discussions with local key figures mentioned earlier have been carried out competently.

There are various ways of conducting pre-course consultancy, but the team approach is likely to be the 'best fit' and two procedures are suggested.

On-site

- The appropriate specialist (not necessarily in IT) carries out a study of the client's business, or part of it. For example, the client might be interested in putting staff records and wages on to the computer and this might decide who visits the client — a personnel, finance or IT expert.
- The specialist discusses the study with the course team.
- The team presents its recommendations to the client.

This approach has two advantages:

- It gives the team first-hand information about the business.
- Clients find it reassuring to be on home ground for the first meeting.

College workshop

Individuals are invited, within a group of other prospective clients, to explain their concerns to the course team.

This approach has two advantages:

- it can encourage the beginning of a group identity for potential course members;
- it is less time-consuming and hence less expensive than visiting clients, but this benefit may be offset if 'surgeries' prove necessary as an addition.

NB: Colleges may like to consider starting their own Business Club with consultancy as its base. It could prove invaluable as a contact point with the community, a source of opinion in curriculum development, a pool of work placement providers, as well as a ready group of clients for short courses. Such a scheme, however, goes beyond the purposes of this document.

The first questions

There are four questions which potential users of IT normally ask:

- What is IT?
- What can IT do for small businesses in general?

- What can IT do for me now?
- What can IT do for me in the future?

Broad answers are given in Section IV. Before specific answers can be given to the last two questions, clients need to:

- clarify their firm's trading objectives;
- review present systems in the light of those objectives;
- make necessary changes before the implementation of IT.

The Distributives Trades' EDC report on technology and training states that wrongly chosen or mishandled IT can cause major disruption in a small business. Many manual systems seem efficient because any anomalies or difficulties are compensated for by the staff who operate them. If an IT system simply replaces an inefficient manual one the inefficiencies will remain, but the outcomes of the computer are not likely to be questioned and so mistakes and errors of judgement will be made.

Colleges offering a consultancy service will have to decide how far it is practicable to help small firms review existing practices. At the very least, they must raise the issue of present efficiency and encourage the firms to question any inadequacies in their procedures before contemplating the purchase of IT.

Though consultancy may be a new departure for some colleges, the attractions for clients are considerable:

- The advice is impartial.
- There is a wide range of expertise, practical and academic, to draw on.
- Discussion is (or should be) jargon-free.
- There is an after-course service.

Providing adequate resources

Clients' belief in the value of the consultation and training on offer will be affected by the quality of resourcing and support services. As business people, they will expect high standards not only in the trainers' performance but also in administrative arrangements.

The following are just some of the points for a college to bear in mind while preparing and running courses:

- prompt responses to telephone and postal enquiries;
- joining instructions sent out in good time, with a programme showing starting and finishing times;
- briefing of support staff — switchboard, administration, domestic, library, technician;
- adequate signposting of course location;
- all workrooms laid out as required — well lit, heated, comfortable and clean;

- equipment in working order and adequate supply;
- facilities for clients — telephone, photocopying, typing, refreshments;
- learning materials well designed and clear, available and up to date;
- prompt starts and endings to sessions.

This may be the first contact with an FE college for many clients, at least for some years, and they will be comparing what you present with what is on offer from private trainers and consultants.

If you are not convinced that resources are adequate, you may be able to get help from outside sources such as the local ITeC.

Post-course consultancy

As a result of the courses, you may recognise:

- a further training need common to most delegates which can be the basis of a follow-up course;
- individual training needs which a course not tailor-made for a particular firm could not hope to meet, and which could be the basis of additional consultancy.

Either way, it is important for college and clients that courses are followed up, preferably by visits. Timing will depend on what clients have written into their action plans (see Section IV).

You can establish:

- whether the learning objectives were reached;
- whether they have been put into practice;
- what barriers to the successful implementation of IT still exist;
- what further help can be offered;
- whether anyone else in the firm needs training.

This follow-up, whatever its form, is an indication of the college's commitment, responsiveness and expertise, as well as a chance to create additional business. For both reasons, it should be effectively pursued.

Accreditation

There are no vocational qualifications in IT for Distribution, and they appear to hold no particular attraction for small traders. As matters stand, there is little point in altering the shape of IT packages for distributors to meet the requirements of any of the small-scale modular IT qualifications offered by BTEC, RSA, C&G or Pitman. Nor is there much evidence that these examining and validating bodies see the development of qualifications based on IT in Distribution as high on their list of priorities.

In the wider context of general Distribution qualifications, the picture is depressingly similar. Curricula may contain references to the growth of IT in the industry, but very few specify what needs to be learned. Even the new NVQ, the Retail Certificate, fails to encourage students to look at IT applications beyond any they might encounter in their day-to-day duties.

An exception to this trend is provided by the RSA which is reviewing the performance criteria on its new Advanced Diploma in Retail Distribution in order to bring them into line with IT practices in the industry.

The main way in which colleges can attempt to redress curricular shortcomings is through expanding the amount of IT material they use on existing courses. News of this will be fed back to examining and validating bodies via moderators and assessors, and to the trade via computer literate staff.

The case studies and assignments in this package can play a part in the process. As well as meeting the needs of the short course, they can be used elsewhere. Possible applications include:

- the RSA Computer Literacy and Information Technology (CLAIT) Scheme and Computer Literacy Certificate;
- RSA Certificate, Diploma and Advanced Diploma;
- BTEC Distribution and Business Studies courses.

IV. THE PROGRAMME

As pointed out in Section III, the successful marketing of short courses demands that local needs be carefully assessed. The following programme and materials can be used as the basis for discussion with local contacts to identify and design the most appropriate package for the market.

The programme is in four units of three hours each, including breaks, and can be offered in a variety of modes to suit clients and colleges as the units are discrete.

Timetable

Units One and Two

Subject	*Method*	*Timing (mins)*	*Description*
Introduction to IT	Presentation	35	
A reordering system — Audrol	Exercise	90	Using code numbers, this simple program reorders goods sold. The exercise demonstrates the merits of computers for such a purpose.
Choosing the package	Presentation	30	
Kennedy & Son	Case study	70	A small family newsagent is compared with a big high street name — are they any different?
Edmunds Ltd	Case study	90	A health food retailer considers using a computer system. What advantages will it have and how should he set about it?
Summary of units	Presentation and group feed-back	15	

Units Three and Four

Subject	*Method*	*Timing (mins)*	*Description*
Applications now and in the future	Presentation	35	
A stock control package — Clockwise plc	In-tray exercise	75	The learners are computer operators handling the stock control system for a wholesaler. Eight tasks are in the in-tray.
Let Byer Beware	Case study	50	Brian Byer has difficulties implementing a new computer system. The learners learn from Brian's mistakes.
Lions Ltd	Case study and role play	150	A voluntary buying group plans a modern stock-control system. Within the role play, learners change a business procedure.
Summary and action plan	Presentation and individual activity	25	Learners write down their personal action plan.

Presentations

The suggested course programme includes three presentations. Everyone has his or her own professional way of putting across information, so what follows is little more than a list of possible topics for inclusion; the list is neither prescriptive nor exhaustive.

In preparing these presentations, consider the following:

- the amount of technical understanding the small trader needs when considering installing a system;
- the need to keep computer jargon and theory to a minimum;
- the merits of brief hand-outs defining key terms;
- ways of presenting hardware and software so as not to deter the hearers;
- the need to stress the benefits of IT for the small distributor;
- techniques for drawing on clients' own business experience for examples.

Content

An introduction to IT (Unit One)

- A definition of IT.
- What a computer can do.
- What applications are relevant to the small trader.
- What the benefits are.
- What a computer consists of — some technical terms explained.

Choosing the package (Unit Two)

- The importance of forward planning.
- Identifying the need.
- Evaluating what is available against current and future need.
- Assessing suppliers' offers — from system installation to the quality of the printed manuals.

Applications now and in the future (Unit Three)

- For jobs and job holders.
- For relationships with suppliers and customers.
- For control systems — merchandising, finance, administration, warehousing, selling.

Support documents

The following papers can be helpful to clients and colleges alike.

A Business Appraisal Sheet

This should be completed and returned by clients before the course starts, whether or not they take part in pre-course consultancy:

- It focuses the attention of course members on key issues and helps them formulate their own objectives for the course.
- It identifies to the course team the range of businesses to be represented and the IT expertise of the delegates.

The Action Plan

This paper is given to delegates to complete during the last session of the course. The question, 'What are you going to do?' emphasises the practical intent of the course.

It is not meant to be used by the course team as a source of feedback, though a discussion based on the contents could be an opportunity for delegates to share their expectations.

One way of trying to get commitment from delegates is to pair them off to share their plans. They agree between them a target date for implementing their plan or part of it, and contact each other on that date to check on progress.

NB: A sample of a course feedback sheet is not included. It may identify course members' immediate reaction to the course and their perception of its potential usefulness, but it is more valuable to follow up the course after a predetermined period — by telephone, letter or visit — to find out what, if anything, delegates have done in the light of the course.

BUSINESS APPRAISAL SHEET

It would help us to satisfy your requirements on the course if you were to complete and return this short appraisal of your business before you attend.

1. (a) How would you describe your business (e.g. retail jeweller)?

   (b) How many employees and branches do you have?

2. (a) What, if anything, do you use IT and computers for at the moment?

   (b) What machines, programs or software packages do you use?

3. (a) What IT and computer systems may be of interest to you in the future?

   (b) Is your business ready to implement these systems now?

4. What is your own previous experience of IT and computers?

5. What do you hope to get out of the course?

AN ACTION PLAN

Now you have completed the course, what are you going to DO when you return to your business to implement what we have discussed?

To focus your thoughts, it may help to write down a few items under each of the following headings.

Myself

My business

My staff

Do I need help and do I know where to get it?

The questions answered

In Section III, reference was made to the four questions most commonly asked by potential users of IT. Here are brief answers you can develop.

What is IT?

A detailed, scientifically correct answer is not likely to be appropriate for clients. Basically, IT is a system of electronic storage, processing and retrieval; the components are machinery (hardware) and programs (software).

The hardware may be:

- computers — which have two characteristics:
  - — they are electronic,
  - — they are programmable (i.e. machines which will carry out different sets of instructions as required);
- the rest — items which are electronic but not programmable.

To illustrate the difference, a computer will process accounts but can be reprogrammed for word processing. A dedicated word processor, on the other hand, has a set of instructions built into it and cannot be changed.

Items of machinery (hardware) are usually categorised as IT if they produce information after processing a lot of simple facts or data.

What can IT do for small businesses in general?

Many may need persuading that IT is not just for large organisations. In general terms, IT has three advantages over manual procedures for big and small firms alike:

Speed: How much faster depends upon the task. Audrol (Unit One of the course) is an example.

Quantity: An enormous amount of varied data can be stored and changed into information by the processing section of the machine.

Accuracy: Computers make very few mistakes provided the correct data is fed in and the machine is using the right set of instructions to carry out the task (its program).

The levels of application have been shown in Figure 1, page 1.

What can IT do for me now?

To use the three advantages:

Speed
- — Competition between businesses is keen.
- — Efficient service means repeat sales.

Quantity
Firms:
- — deal with many suppliers;
- — have many customers;
- — handle many lines of goods which can be broken down by, for example, size and colour.

Accuracy
- — Errors mean potential loss in net profit.
- — Profit margins are tighter than ever before.

Applications of IT of specific relevance to the small distributor include:

- unit stock control (including Electronic Point of Sale (EPOS) systems which capture sales data from a cash register terminal);
- credit card authorisation;
- teletext advertising and selling (e.g. Prestel);
- warehouse control (location and retrieval of stock);
- shelf/shop/warehouse layout (given basic data, the optimum sales area and stock levels are displayed).

In addition, there are standard business 'packages' which do not need adjusting to individual requirements (for example, with a simple word processing package a trader can send a personal letter to customers).

What can IT do for me in the future?

Reductions in cost: The costs of hardware and software are coming down and hence the bar code readers and EPOS systems used by major supermarket chains are within the reach of many small traders.

Improved telecommunications: Increasingly, computers can 'talk' to each other using satellite technology and British Telecom's improved *System X*. Speed, quantity and accuracy are enhanced by linking a number of computers; for example, international credit cards can be monitored in seconds by computers on the other side of the world, cutting commission charges as well as fraud. Similarly, cash balances can be transferred automatically from one bank to another without a cheque.

Technological advances: Systems which process data into information are already within the reach of all businesses. Those which produce knowledge from supervisory information (Figure 1, page 1) will soon be more easily available. It is in this area of longer term planning that many companies will be investing in order to remain competitive.

Computer size and complexity will grow as it becomes necessary to obtain and store larger quantities of information. Computers will be able to develop models in which the proprietor could find out 'What would happen if I ...?'. For example, given basic data about the firm and its market, it will be possible to pick the best retail or warehouse location.

The small trader will not have to buy such an item; its services will be available through consultants. Perhaps DTI will offer grants for this new service (see Appendix III).

This section has simple answers to simple questions because this is usually what the situation demands at the outset. However, before FE consultants/trainers can go further, they need to read widely. Please see Appendix V for periodicals and articles which could be the basis of an information resource.

Section V contains the case studies and exercises timetabled on the course.

V. LEARNING MATERIALS

The course items which follow are in the order in which they appear in the training programme. They include a variety of teaching/learning strategies and are adaptable for use on other courses. The two software items do not need any particular pieces of hardware or software as print-outs of the programs are supplied.

AUDROL — EXERCISE

(90 minutes)

SUMMARY

Using code numbers, this simple program reorders goods sold. The exercise demonstrates the merits of computers for such a purpose.

TARGET LEARNING GROUP

All levels of staff.

OBJECTIVES/OUTCOMES

By the end of the exercise clients should have:

- experienced the main advantages of computerised systems, namely speed, quantity and accuracy of information;
- operated a simple stock control/reordering system;
- overcome any initial anxiety about using a computer.

SIZE OF GROUP

The exercise is done individually, though Task 4 may be done in pairs or small groups (3-5).

MATERIALS NEEDED

- Nimbus machines and printers
- The Audrol program
- Flip chart and pens
- Audrol One (hand-out)
- Order forms (three per client)
- Audit rolls
- Print-out of order

PROCEDURE

- The trainer explains the objectives of the exercise and issues Audrol One, three order forms and an audit roll to each client.
- Clients work out what has been sold and reorder this number on the order forms provided (Task One — 30 minutes).
- The trainer explains how to load and use the program and what to do in case of error (5 minutes).
- Clients perform the same reordering exercise using the computer (Task Two — 10 minutes).
- The trainer issues the correct print-out.
- Clients compare the results of both exercises and the print-out for speed and accuracy (Task Three — 10 minutes).
- The trainer analyses and summarises findings through a report from the group (5 minutes).
- The trainer designates pairs or small groups to answer three questions (Task Four — 15 minutes).
  - How could the system be improved?
  - What does each system of the program do?
  - How could you change the VAT rate?
- The trainer summarises the answers and reinforces the advantages of computerised systems for clients (15 minutes).

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TRAINER'S NOTES

Introduction/rationale

This simple piece of courseware runs on many versions of BASIC. The program can be adapted with the appropriate manual by almost anyone with basic programming skills. It is written in Research Machines Ltd BASIC for a Nimbus.

Trainers should practise the exercise themselves before running it. The program is self-explanatory, but the following notes may be helpful.

The program

Lines 50-59 set up 'counters', one for each type of car, e.g. James Bond is *A*, Fire Engine is *B* and so on.

Line 60 tells the computer to wait for a code number to be entered. Often a question mark appears on the screen as a prompt.

Lines 70-160 increase the appropriate counter by one according to the code number. For example, the James Bond counter *A* is originally set at zero in line 50. If the input at line 60 is the code number 1 (referring to the James Bond car), then counter *A* is raised by one:

A = A + 1
O = O + 1

Therefore *A* now equals one.

The next time code number 1 is entered as having been sold, the value of counter *A* is increased by one again. The present value of *A* is one, therefore the new value is the previous value plus one, i.e. two.

Lines 170 If the operator enters 99, the computer operates line 190 and goes to print the answer; if not, it operates line 60 and waits for the next code number.

Lines 190, 220, 250, 280, 310, etc. calculate the total cost price, excluding VAT, of each item.

Lines 200, 230, 260, 290, 320, etc. calculate the total VAT at 15% of the above cost price.

Lines 210, 240, 270, 300, 330, etc. calculate the total cost price plus VAT on each item.

Lines 490-755 create the print-out. If any items need adjusting for a different version of BASIC it is likely to be these, but only the 'PRINT #2' commands. In RML BASIC this command is to print out on the printer rather than the screen.

The tasks

The scenario is simply the procedure of reordering the items sold to customers.

Task One

This can take up to 30 minutes or until course members get bored (if this happens, use the experience to show the value of having a computer to take over routine tasks). The trainer may wish to ban the use of calculators.

Task Two

If an error is made in entering code numbers, it can be corrected by adjusting the codes which have not been entered. Those wishing to start again must 'drop out' of the program and load it again.

Task Three

To emphasise the speed and accuracy advantages of the computer, the trainer could ask clients to use percentages to calculate the speed of the computer against the manual method. The two print-outs can each be compared with the correct answer and the number of errors counted.

At this point the trainer could:

- calculate with the group the average speed and number of errors;
- analyse the types of errors made and how each came about;
- discuss with the group the tedious aspect of the job and how computers can relieve the tedium;
- lead into Task Four by emphasising the risk of human errors.

Task Four

On some computers it may be easier to provide a copy of the program, but participants often like to obtain their own print-out to take away with them.

The following points should be covered in answers to the questions.

How could the system be improved so that no mistakes are made?

(a) Link the computer to the cash register by a cable, disc or cassette (the last two contain the audit roll code numbers and are recorded by a more sophisticated cash register). This makes the operators — the course members themselves — redundant. However, the cash register operator could enter the wrong code number.

(b) Count what stock is left on the shelves, record this information in a hand-held recorder and then put the cassette into the computer, which has a memory containing the quantities of stock on sale at the outset. This answer enables the company to reorder what has been stolen as well as sold, but the procedure is open to error as the stock has to be counted manually.

(c) Perhaps the best but most expensive answer is the same as (a), but using some kind of 'wand'. This could read the code number recorded magnetically on tape or 'visually' on bar codes attached to price tickets. However, the price tickets may bear the wrong coded labels/strips. If the packaging is printed with the bar code by the manufacturer, this problem is overcome.

What does each section of the program do?

This could be omitted if the trainer feels that it is knowledge clients do not require, but many enjoy having it explained. The answer is given earlier in these notes.

How could you change the VAT rate?

Look for lines 200, 230, 260, 290 etc. and change the 0.15 figure (preset for 15%) to the necessary decimal.

Conclusion

This is a small operation with only 10 items, and uses a simple program.

Ask the clients how many items are sold in their own firms, and point out that one computer can deal with all of them.

Summarise the advantages of:

- speed
- accuracy
- quantity

Discuss what these advantages mean in real terms:

- efficiency
- profits
- lower stock holdings

AUDROL

Outline

This exercise simulates a system which can be used for reordering stock which has been sold. The trainer will explain the objectives of the exercise and the tasks involved.

Situation

You manage a toy shop and have to reorder merchandise for the toy car section. Information about goods sold is collected by the cash register: each item is given a code number (1 to 10) which is keyed into the machine when a toy is sold.

The cash register audit roll contains the code number and selling price (money taken into the cash register) of each item sold. The details are as follows:

Number	*Name*	*Supplier*	*Cost price*
1	James Bond	Dinky	£1.35
2	Fire Engine	Lesney	£1.00
3	Police Car	Zipcars	£1.05
4	Ambulance	Lesney	£1.43
5	Horsebox and Land Rover	Zipcars	£1.60
6	Porsche 812	Dinky	£0.95
7	Ford Capri	Dinky	£0.95
8	Rover	Lesney	£1.05
9	American Fire Tender	Lesney	£1.65
10	Rolls Royce Silver Shadow	Zipcars	£1.75

ORDER FORM

To

Date

Order no.

Description	Quantity	Cost price (ex.VAT)	VAT	Total Cost
	Totals			

Signed .....

Audrol Three

CASH REGISTER AUDIT ROLL

7	001.99
10	002.95
5	002.55
1	002.10
7	001.99
8	002.30
4	002.45
9	002.75
3	002.20
6	001.75
8	002.30
1	002.10
5	002.55
3	002.20
7	001.99
9	002.75
10	002.95
2	001.95
1	002.10
8	002.30
3	002.20
6	001.75
4	002.45
7	001.99
3	002.20
10	002.95
9	002.75
1	002.10
6	001.75
8	002.30
10	002.95
5	002.55
7	001.99
2	001.95
9	002.75
8	002.30
2	001.95
4	002.45
5	002.55
7	001.99
2	001.95
7	001.99
9	002.75
2	001.95
4	002.45
6	001.75
8	002.30
9	002.75
1	002.10
2	001.95
5	002.55
10	002.95
6	001.75
8	002.30
2	001.95

CORRECT PRINT-OUT OF ORDER

ORDER TO DINKY

DESCRIPTION	NUMBER	TOTAL CP	VAT	CP + VAT
J BOND	5	6.75	1.0125	7.7625
PORSCHE 812	5	4.75	0.7125	5.4625
FORD CAPRI	7	6.65	0.9975	7.6475
		TOTALS	2.7225	20.8725

****

ORDER TO LESNEY

DESCRIPTION	NUMBER	TOTAL CP	VAT	CP + VAT
FIRE ENGINE	7	7	1.05	8.05
AMBULANCE	4	5.72	0.858	6.578
ROVER	7	7.35	1.1025	8.4525
U.S. FIRE	6	9.9	1.485	11.385
		TOTALS	3.4455	26.4155

****

ORDER TO ZIPCARS

DESCRIPTION	NUMBER	TOTAL CP	VAT	CP + VAT
POLICE CAR	4	4.2	0.63	4.83
HORSE+LAND R.	5	8	1.2	9.2
R.R. SILVER S.	5	8.75	1.3125	10.0625
		TOTALS	3.1425	24.0925

THE AUDROL PROGRAM

```
 5 REM AUTHOR: GRAHAM BANFIELD
 6 REM COLLEGE FOR THE DISTRIBUTIVE TRADES
 7 REM 30 LEICESTER SQUARE, LONDON WC2
 50 A := 0
 51 B := 0
 52 C := 0
 53 D := 0
 54 E := 0
 55 F := 0
 56 G := 0
 57 H := 0
 58 I := 0
 59 J := 0
 60 INPUT X
 70 IF X = 1 THEN A := A + 1
 80 IF X = 2 THEN B := B + 1
 90 IF X = 3 THEN C := C + 1
100 IF X = 4 THEN D := D + 1
110 IF X = 5 THEN E := E + 1
120 IF X = 6 THEN F := F + 1
130 IF X = 7 THEN G := G + 1
140 IF X = 8 THEN H := H + 1
150 IF X = 9 THEN I := I + 1
160 IF X = 10 THEN J := J + 1
170 IF X = 99 THEN 190
180 GOTO 60
190 A1 := A * 1.35
200 A2 := A1 * 0.15
210 A3 := A1 + A2
220 B1 := B * 1
230 B2 := B1 * 0.15
240 B3 := B1 + B2
250 C1 := C * 1.05
260 C2 := C1 * 0.15
270 C3 := C1 + C2
280 D1 := D * 1.43
290 D2 := D1 * 0.15
300 D3 := D1 * D2
310 E1 := E * 1.6
320 E2 := E1 * 0.15
330 E3 := E1 + E2
340 F1 := F * 0.95
350 F2 := F1 * 0.15
360 F3 := F1 * F2
370 G1 := G * 0.95
380 G2 := G1 * 0.15
390 G3 := G1 + G2
400 H1 := H * 1.05
410 H2 := H1 * 0.15
420 H3 := H1 + H2
430 I1 := I * 1.65
440 I2 := I1 * 0.15
450 I3 := I1 + I2
460 J1 := J1 * 1.75
470 J2 := J1 * 0.15
480 J3 := J1 + J2
490 PRINT #2                    **ORDER TO DINKY**
495 PRINT #2
500 PRINT # "DESCRIPTION"; TAB (20); "NUMBER"; TAB (35);
            "TOTAL CP"; TAB (50); "VAT"; TAB (6); "CP + VAT"
510 PRINT #2
520 PRINT #2 "J BOND"; TAB (20); A; TAB (35); A1; TAB (50); A2;
            TAB (60); A3
530 PRINT #2 "PORSCHE 812"; TAB (20); F; TAB (35); F1; TAB (50);
            F2; TAB (60); F3
540 PRINT #2 "FORD CAPRI"; TAB 20; G; TAB (35); G1; TAB (50); G2;
            TAB (60); G3
545 PRINT #2 TAB (35); "TOTALS"; TAB (50); A2 + F2 + G2; TAB
            (60); A3
550 PRINT #2
```

```
560 PRINT #2 "*****************************************************"
570 PRINT #2
580 PRINT #2 "             **ORDER TO LESNEY**"
590 PRINT #2
600 PRINT #2 "DESCRIPTION"; TAB (20); "NUMBER"; TAB (35); "TOTAL
    CP"; TAB (50); "VAT"; TAB (60); "CP + VAT"
610 PRINT #2
620 PRINT #2 "FIRE ENGINE"; TAB (20); B; TAB (35); B1; TAB (50);
    B2; TAB (60); B3
630 PRINT #2 "AMBULANCE"; TAB (20); D; TAB (35); D1; TAB (50);
    D2; TAB (60); D3
640 PRINT #2 "ROVER"; TAB (20); H; TAB (35); H1; TAB (50); H2;
    TAB (60); H3
650 PRINT #2 "U.S. FIRE"; TAB (20); I; TAB (35); I1; TAB (50);
    I2; TAB (60); I3
655 PRINT #2 TAB (35); "TOTALS"; TAB (50); D2 + H2 + I2; TAB
    (60); D3 + H3 + I3
660 PRINT #2
670 PRINT #2 "*****************************************************"
680 PRINT #2
690 PRINT #2 "             **ORDER TO ZIPCARS**"
700 PRINT #2
710 PRINT #2 "DESCRIPTION"; TAB (20); "NUMBER"; TAB (35); "TOTAL
    CP"; TAB (50); "VAT"; TAB (60); "CP + VAT"
720 PRINT #2
730 PRINT #2 "POLICE CAR"; TAB (20); C; TAB (35); C1; TAB (50);
    C2; TAB (60); C3
740 PRINT #2 "HORSE-LAND R."; TAB (20); E; TAB (35); E1; TAB (50);
    E2; TAB (60); E3
750 PRINT #2 "R.R. SILVER S."; TAB (20); J; TAB (35); J1; TAB
    (50); J2; TAB (60); J3
755 PRINT #2 TAB (35); "TOTALS"; TAB (50); C2 + E2 + J2; TAB (60);
    C3 + E3 + J3
760 END
```

KENNEDY AND SON — CASE STUDY

(70 minutes)

SUMMARY

A small family newsagent is compared with a big high street name — are they any different?

TARGET LEARNING GROUP

All levels of staff unfamiliar with IT.

OBJECTIVES/OUTCOMES

By the end of the case study clients should have:

- identified the uses to which IT can be put in a retail environment;
- agreed that similar applications can be used by small and large organisations;
- acknowledged that different hardware and software are needed by different sized organisations;
- identified the advantages and disadvantages of IT systems;
- redefined the disadvantages as challenges which have to be met;
- experienced how to start the selection process for an appropriate hardware/software system to suit a particular environment.

SIZE OF GROUP

Syndicate exercise (groups of 3 to 5) for Tasks One to Four. Task Five, if included, can be done in pairs or as an individual exercise.

MATERIALS NEEDED

- Kennedy One (case study)
- Kennedy Two (task sheet)
- College hand-out on hardware/software (not supplied here)

For Task Five only:

- Kennedy Three (hardware and software)
- Telephone access
- Telephone directory
- Trade directory

PROCEDURE

- The trainer explains the objectives of the exercise and issues Kennedy One (case study) and Kennedy Two (task sheet) (5 minutes).
- The trainer divides the group into syndicates and asks them to designate a spokesperson to report back.
- Clients complete tasks One to Four (40 minutes).
- The trainer analyses and summarises the findings from the oral report of each syndicate (15 minutes).
- The trainer offers information on appropriate hardware and software and issues the college hand-out, if available (10 minutes).

NB: If there is time (an extra 30 minutes), the syndicates can also do Task Five before the trainer's final comments.

TRAINER'S NOTES

Introduction/rationale

This case study is a simple comparison between a small confectioner, tobacconist and newsagent (CTN) and a large multiple trading in the same merchandise.

A CTN has been selected as it is useful to concentrate upon applications which not only have relevance to all retailers but are of special significance to one particular trade. Most people have had an account for newspaper deliveries and so appreciate the basic system and its operation.

Trainers should encourage course members to offer personal experiences which add to the discussion.

The tasks

The following points should emerge during the plenary session.

Task One

The two lists of applications should be very similar and include:

GENERAL	*SPECIFIC*
Accounts	Newspaper accounts
Purchase order processing	Round management/ organisation
Personnel records*	
Payroll*	

* more likely for, say, Martins than Kennedy.

Trainers should emphasise the similarity and point out that differences are the result of advantages of scale; for example, personnel records and payroll would be centralised without a computer system.

Task Two

The answer is a matter of size only. Though the applications are very similar, more memory is required by Martins because there is more data to handle. However, because Martins are networking with a large computer at their head office and small ones in the branches, their customers would not see any difference from Kennedy's operation.

Trainers could include some examples of networking and of how one computer communicates with another.

Task Three

The advantages:

- Time — saving staff time
  — dealing with customers more quickly
  — reductions in unpaid accounts
- Accuracy — less undercharging
  — fewer customer complaints
- Bulk of data — five rounds of 100 newspapers stretches a manual system but is nothing to a computer
- Forecasting — like those of any retailer, CNT sales are governed by trends. IT enables the newsagent to predict them and therefore, for example, cut down on newspaper returns.

If newspapers are delivered from a wholesaler together with a computer-produced delivery note (as in the case of Kennedy), the retailer may be allowed access to the wholesaler's stock control system. Thus the retailer may order and deal with returns by communicating directly with the wholesaler's computer.

In addition, the majority of magazines and books now bear unique bar code numbers to enable the retailer's data capture system to identify the item. Thus the retailer does not even have to pay for price tickets.

The disadvantages:

- Cost — Kennedy estimates a £3,500 hardware plus £350 pa, maintenance service contract.
- Training — as Kennedy works 364 days a year, 6.30 am to 7.30 pm, and is dependent on a regular trade, he cannot afford to lose staff or close the shop for training.
- Opposition — from staff and customers.
- Breakdowns

Task Four

Cost: The benefits should include fewer hours worked (and therefore paid for). Greater accuracy will mean savings: Martins estimate a minimum saving of £10 per week per branch on newspaper undercharging.

Training: If planned properly, it can be done mainly on the job, during quiet spells.

Opposition: If the advantages to staff are presented properly as a way of relieving the complexity or boredom of a job, then it is often well received after initial concern. Customers usually like it as it means shorter queues and reliable bills.

Breakdowns: If suppliers' manuals are followed and back-up print-outs and copies of disks made, the effects are limited. If there is going to be a breakdown it will be during the first few months when the old manual system is still in people's minds and can be brought back into use. A good service contract is important.

The trainer should conclude that these are not so much disadvantages as challenges to be met in order to obtain the advantages.

Task Five

Appendix IV contains information on hardware and software which may be annotated for use by course members. In addition, the trainer should provide any college information, especially if it has bought an item which could be used in this instance.

Conclusions

Many small firms look at their big major rivals and conclude that they will never be able to justify using computers in the same way.

Large and small computers have the same applications, offer the same advantages and pose the same challenges. The main difference, inevitably, is one of size.

KENNEDY AND SON and MARTINS THE NEWSAGENTS

Kennedy and Son

Situation

Kennedy and Son is a small retail newsagent which has been established for 25 years, although Mr Kennedy took over less than a year ago. The premises cover an area of approximately 400 square feet. They sell newspapers, cigarettes and other tobacco products, magazines, greeting cards, and confectionery.

Why Technology?

All aspects of financial control, stock control and accounting are done manually and are therefore labour intensive. Mr Kennedy estimates that administration takes three days per month.

Details of deliveries of newspapers are sent by the wholesalers (Smiths and News International) daily as computer print-outs. Returns are counted and adjustments made to these print-outs every day.

The major stock control is done only once a year because of the time factor, but Mr Kennedy's knowledge of the business and individual selling lines enables him to keep up to date with sales trends.

The order process for newspapers is as follows:

- instructions concerning changes in the order are entered in the diary;
- these are transferred to:
  - the news ledger which records the amounts owed by customers and a history of the payments,
  - details of the round for subsequent delivery;
- from the news ledger bills are prepared for customers, normally every month but sometimes weekly.

Losses are incurred through failing to alter prices as they increase, the inaccurate recording of 'stop and start' times, and errors in the ordering of magazines. Mr Kennedy is unable to keep up to date with his account books.

Implementation

Mr Kennedy really needs a machine for the counter, to use directly with the customers, rather than for his back office. The problem of training in any new equipment and procedures may be overcome by using distance learning materials, including videos.

Martins the Newsagent

Situation

Martins the Newsagent is a big public company, established for over 50 years, whose main business is the operation of 500 newsagents. They sell newspapers, cigarettes and other tobacco products, magazines and books, greeting cards, ice cream, confectionery, stationery, toys and records. Approximately 375 of the shops distribute papers.

Why Technology?

The reasons for this are similar to Mr Kennedy's, but made greater by the size of their operation. In a medium-sized shop the effect of one price change can mean a long search of the ledgers to find out who orders that product and then make the adjustment. Manually, this could take two to three hours and is prone to error.

Implementation

In 1980, Martins began to cost the installation of computers into their operations. They realised that machines should sit on counters rather than in the manager's office. They wanted a user friendly system with a reasonably sized VDU, cash register facilities, a receipt/audit roll printer and administration capabilities. Three companies were approached and Halo was chosen.

Among the benefits, 'stop and starts' and price changes could be set up within seconds rather than hours. Goods were entered into the system daily with a print-out of products received. Weekly wholesale summaries were produced. The system provided an integrated cash handling procedure. Cash could be received in the cash drawer and the customer's account updated by linking the cash registers in a network with the main computer. Price files could be monitored and marketing information extracted.

Kennedy Two

KENNEDY AND SON
THE TASKS

1. List the IT applications you can identify in a small newsagent such as Kennedy and Son, and then in a larger business such as Martins the Newsagents.
2. Produce reasons why the two businesses require different hardware and software.
3. List the advantages of installing such systems.
4. List the disadvantages and reconsider each in turn. How may each one be overcome or viewed in a more favourable light?
5. Using the information provided, the local telephone and trade directories, trade press and magazines, select three companies which provide hardware and/or software which may be appropriate for Kennedy and Son.

Kennedy Three

HARDWARE AND SOFTWARE

Computer hardware and software suppliers

Although some hardware has been suggested (see below), names and addresses of numerous hardware manufacturers and software houses in particular areas can be found in the telephone and trade directories. You should seek advice before contacting a supplier.

Some trade associations recommend particular hardware and have assisted in the development of software packages which are of particular relevance to their trade. Usually, hardware manufacturers will recommend software distributors.

It is useful to get several quotes on terms and maintenance costs.

Possible hardware and software

For the small independent:

- CBM 3032 computer with a CBM 8050 dual disks drive with single-sided floppy disk drive, and a small Anadex printer or CBM 4022. This system will provide for 2000 customers, 500 publications and 20 delivery runs.
- Apple 48k computer with hard disk unit, printer and VDU.
- Software from Cressage Computer Services.

For network:

- Hewlett Packard 3000/48 with 2Mb memory and 404Mb disk storage. The larger newsagents would have four terminals and two printers, with smaller companies having just one screen and one printer.
- Micro-Simplex provide software which can be used to note records of purchases, multi-total sales, and payments made to suppliers.

EDMUNDS LIMITED — CASE STUDY

(90 minutes)

SUMMARY

A health food retailer considers using a computer system. What advantages will it have and how should the retailer set about it?

TARGET LEARNING GROUP

Managers and supervisors responsible for IT implementation in their firms.

OBJECTIVES/OUTCOMES

By the end of the case study clients should be able to:

- analyse and evaluate existing systems in order to prepare for IT implementation;
- identify the business requirements for a new IT system;
- perceive the importance of reviewing, planning and preparation when implementing an IT system;
- perceive the effects of computerised stock control systems on the business and its staff.

SIZE OF GROUP

Syndicate exercise (groups of 5).

MATERIALS NEEDED

Flip chart and pens
OHP, transparencies and pens
Edmunds One (case study)
Edmunds Two (task sheet)
Transparency — 'Review, Plan, Prepare'

PROCEDURE

- The trainer explains the objectives of the exercise and issues Edmunds One (case study) and Edmunds Two (task sheet) (5 minutes).
- The trainer divides the group into syndicates.
- Syndicates complete tasks one to three (45 minutes).
- Syndicates report back (30 minutes).
- The trainer analyses and summarises the findings, using the transparency (10 minutes).

TRAINER'S NOTES

Introduction/rationale

Our research shows that many small firms wish to develop stock control procedures. Food retailers, in particular, would value IT systems because of the high rate of stock turn and the perishable nature of their products. Some use different systems for perishables and non-perishables. This case study concentrates on stock control, highlighting issues like shelf life and wastage allowance. Even if the clients are not food retailers, Edmunds is a type of shop they will recognise. It is based on a real company.

There is a growing number of systems on the market. Retailers need to learn to discriminate in order to decide the best use to make of any new systems output, such as sales figures, forecasts and trends.

Most importantly, firms need to review their manual system before employing an IT one. The business may well have to adapt itself to the information flow and documentation procedures of the software program (adapting the program to the business is likely to be too costly). The impersonal computer will not make allowances for the errors and idiosyncracies of members of staff which a manual system may tolerate.

The tasks

Task One

The following points should emerge:

- Company sales are rising faster than inflation, so there is real volume growth.
- The lead time is too long and needs shortening to 12-24 hours.
- A unit stock-control system should be introduced, showing minimum stock levels per commodity group for each day for each branch.
- Is the wastage allowance too stringent? Is it more easily attainable using a computerised stock-control system?
- How is the pattern of trade changing? What are the variations between branches?
- What are the problems associated with seasonal stock items — timing, promotions, variations in demand?

Task Two

The following points should emerge:

- A shorter lead time would result in greater accuracy of ordering, maximising the sales potential of each branch, releasing cash tied up in excessive stock holding.
- As the company expands, tighter controls will be needed at branch level to maximise sales potential (particularly perishable and seasonal lines) and achievable gross margin, and to identify wastage.
- Depot costs need to be closely monitored, including control of optimum stock holdings, distribution of stock to branches, and transport costs.

NB: Groups may suggest that the depot be closed and supplies sought directly from manufacturers. This, however, would result in:

- higher prices because of small orders
- excessive total stock holdings
- more administration
- invoices at branch level
- less overall control.

Task Three

Planning: Syndicates should analyse existing data to establish parameters for:

- minimum stock holdings
- achieveable wastage allowance
- depot layout
- distribution methods
- delivery schedules

Selecting a system: What is required is data capture via EPOS tills and/or hand-held portable equipment, linked via telephone line to a depot-based system.

Timing the changeover: A realistic schedule is six months from delivery of the equipment. Starting with the depot and one branch, installation problems can be ironed out before bringing in the other branches. Reference should also be made to the importance of monitoring and evaluating the system once it is fully operational.

Staff consultation and training: Points should emerge on the value of consulting members of staff who operate the manual systems. The timing and manner of any announcement to staff are also important.

Training should include:

- training for management in the use of the system;
- training for management in how to instruct staff;
- training for staff in:
  - the system;
  - bar codes;
  - scanning methods.

EDMUNDS FRESH FOOD COMPANY

Situation

Edmunds Limited is a chain of six health food stores in the South East, with 50 employees, some part time. Sales last year were £2,500,000; these are projected to rise over the next three years by a maximum of 15% per annum.

The sales breakdown of the company is as follows:

	Shelf life
Cheese (including vegetarian cheese)	variable
Quiches (including vegetarian quiches)	24-36 hours
Yoghurts (including live yoghurts)	24 hours
Milks, various types	24 hours
Sandwiches	12 hours
Cereals and pulses	6-12 months
Dietary supplements	6-12 months
Health and beauty products	9-12 months
Natural food products	12-48 hours
Free range eggs	7 days

The company operates a central buying system and all merchandise is delivered from a central depot.

At present the system is a manual one. Orders are telephoned to the central point in the late afternoon (day 1); the goods are assembled at the depot the following day (day 2) and delivered between 6 and 10 am on day 3. Because of this 36-hour cycle, branches tend to under-order; there are many short-date products and the company has a stringent wastage allowance of 1.5%.

However, as the company's sales expand, there are often severe stock shortages, particularly in the highly perishable products. In addition, seasonal factors can greatly affect the sales of individual products such as salads, slimming and beauty aids.

The pattern of trade is changing towards busier periods at lunchtime (12 noon to 2 pm) and more volume sales from Thursday to Saturday. The company is very aware of the growing interest in the 'green' movement and foresees an increasing demand for vegetarian, health and natural products.

The company has recently been approached by a computer software firm hoping to sell them their 'Retail System'. This has prompted the management at Edmunds to appraise their existing manual systems with a view to moving to an automated one of some kind.

Edmunds Two

EDMUNDS FRESH FOOD COMPANY

Task One

Evaluate the present system of stock control and replenishment at branch and depot level. What are its limitations?

Task Two

Evaluate the requirements of the company in relation to:

- order processing
- sales data
- stock replenishment
- financial and unit reconciliation

at both branch and depot level.

Task Three

Prepare a short presentation highlighting the probable effects on the company and staff of introducing a computerised stock-control system. You should consider:

- planning what information/output you want from the new system (the answer should distinguish between long-term planning and day-to-day control);
- selecting a system;
- timing a changeover;
- staff consultation and training.

An overhead projector and flip chart are available.

TRANSPARENCY

In order to commence the application of any automated system the business must:

- **Review** the present systems to enable the software package to 'fit in'
- **Plan** what information/output is required from the new system
- **Prepare** the business, staff and perhaps the customers for change.

CLOCKWISE plc — IN-TRAY EXERCISE

(75 minutes)

SUMMARY

The learners are computer operators handling the stock control system for a wholesaler. Eight tasks are in the in-tray.

TARGET LEARNING GROUP

All levels of staff.

OBJECTIVES/OUTCOMES

By the end of the exercise, clients should:

- be more confident in operating a computer system;
- perceive the role of computers in stock control procedures;
- be able to select from menus and input data more accurately.

SIZE OF GROUP

Individual exercise.

MATERIALS NEEDED

- Computers and printers.
- The program.
- Clockwise One (hand-out).
- Eight task sheets per client.
- Print-outs of Tasks One, Five, Seven and Eight.

PROCEDURE

- The trainer explains the objectives of the exercise and issues the task sheets.
- The clients carry out Tasks One to Eight, the trainer being available to deal with queries (40 minutes).
- The trainer leads a discussion covering the issues raised in the notes (20 minutes).

TRAINER'S NOTES

Introduction/rationale

This program has been designed for educational use only. It should not be given to course members for use in their own businesses as it would not be able to cope with every eventuality and its speed and accuracy would be in doubt.

Although the setting is a wholesale company, the simulation is relevant for retailers and many other situations in which items are stored.

The program

This is is available, in a dBASE II version for Nimbus PC, from the College for the Distributive Trades (see Appendix VII) at a cost of £7.50, including the disk, copying time, postage and packing. Although old and not very easy to use, it was chosen because many colleges have dBASE II.

Ask a specialist for advice on how the program runs on your type of machine. If you prefer, it should be possible to rewrite it using a different database.

In outline, the file is called STOCK and the program should be recorded on the disk. The computer then copies the file for use in the exercise. In this way, despite changes recorded by course members, the original STOCK file is left intact for the next person to use the disk afresh.

The computer should automatically provide course members with a print-out as required by the task. Participants may need reassurance that the computer is updating the file during tasks which do not require a print-out. The adjustments arising from those tasks are apparent on the print-out obtained from Task Eight.

THE PROGRAM

```
set talk off
SET CONFIRM OFF
use stock
COPY all TO STOCK1
USE STOCK1
erase
@ 10,10 say 'WARNING: This program has been written for'
@ 12,11 say '         educational use only. It must NOT be used'
@ 14,10 say '         for commercial purposes.'
@ 21,10 say '         Press any key to continue'
wait
CLEAR
* start loop to input menu options
DO WHILE t
?
?
?'                                MAIN MENU',
?'                                ==========
?
?'  OPTIONS:'
?'  --------'
?'
?'             1  OBTAIN PRINTOUT OF ENTIRE STOCK FILE'
?
?'             2  OBTAIN PRINTOUT OF A SINGLE ITEM OF STOCK'
?
?'             3  OBTAIN PRINTOUT OF ITEMS WHICH NEED REORDERING'
?
?'             4  RECORD A DELIVERY  TO WAREHOUSE'
?
?'             5  RECORD A DELIVERY  TO A CUSTOMER'
?
?'             6  RECORD A STOCK ORDER'
?
?'             7  ADD BRAND NEW ITEM OF STOCK TO THE COMPUTER STOCK FII
?
?'             8  FINISH PROCESSING'
?
?' Press the number corresponding to your selection'
WAIT TO SELECTION
ERASE
USE STOCK1.DBF
**-------------------------------------------------------------------------
      IF SELECTION='1'
CLEAR
USE STOCK1
SET PRINT ON
SET FORMAT TO SCREEN
?'                            ENTIRE STOCK FILE'
?'                            ******************'
?
?'           ITEM          QUANTITY      QUANTITY      REORDER       SUPPLIER'
?'           NO.           IN STOCK      ON ORDER      LEVEL         NO.'
DISPLAY ALL
?
?
?
SET PRINT OFF
SET FORMAT TO SCREEN
READ
STORE ' ' TO SELECTION
**-------------------------------------------------------------------------
```

```
    ELSE
   IF SELECTION='2'
CLEAR

STORE'                              'TO choice

USE STOCK1
@ 5,10 SAY'WHICH ITEM NUMBER ? 'GET choice
read
SET PRINT ON
SET FORMAT TO PRINT
?'                    DETAILS OF SINGLE ITEM OF STOCK'
?'                    *********************************'
?
?
?
?'           ITEM          QUANTITY     QUANTITY     REORDER      SUPPLIER'
?'           NO.           IN STOCK     ON ORDER      LEVEL        NO.'
?
DISPLAY FOR ITEM=choice
?
?
release choice
SET PRINT OFF
SET FORMAT TO SCREEN
STORE ' ' TO SELECTION
**_____________________________________________________________________
    ELSE
   IF SELECTION='3'
clear
use stock1
STORE 0 TO TEMP
STORE STOCK + ORDER TO TEMP

set print on
set format to print

?'                     ITEMS WHICH NEED REORDERING'
?'                     ***************************'
?
?'           ITEM          QUANTITY     QUANTITY     REORDER      SUPPLIER'
?'           NO.           IN STOCK     ON ORDER     LEVEL        NO.'


DISPLAY FOR TEMP<REORLEVEL
?
?
?
SET PRINT OFF
SET FORMAT TO SCREEN
STORE ' ' TO SELECTION
**_____________________________________________________________________
    ELSE
   IF SELECTION='4'
STORE 'Y' TO OKE
DO WHILE OKE = 'Y'
@ 20,10 SAY '
@  5,10 SAY '
@  7,10 SAY '
CLEAR
USE STOCK1

STORE 0 TO MQUAN
STORE '         ' TO MITEM

@ 5,10 SAY 'WHAT IS OUR ITEM CODE NUMBER ? ' GET MITEM
READ
@ 7,10 SAY 'HOW MANY UNITS HAVE BEEN RECEIVED ? ' GEN MQUAN
READ

REPLACE ORDER WITH ORDER-- MQUAN FOR ITEM = MITEM

REPLACE STOCK WITH STOCK + MQUAN FOR ITEM = MITEM

RELEASE MITEM, MQUAN
```

```
STORE '  ' TO SELECTION
STORE '  ' TO OKE
@ 20,10 SAY 'ANOTHER ITEM Y/N?' GET OKE PICTURE '!'
READ
ENDDO
**_____________________________________________________________________
    ELSE
   IF SELECTION='5'
STORE 'Y' TO OKE
DO WHILE OKE = 'Y'
@ 20,10 SAY '
@  5,10 SAY '
@  7,10 SAY '

CLEAR
USE STOCK1

STORE 0 TO MQUAN

STORE '     ' TO MITEM

@ 5,10 SAY 'WHAT IS OUR ITEM CODE NUMBER ?  'GET MITEM
READ

@ 7,10 SAY ' HOW MANY UNITS HAVE BEEN DELIVERED ?  'GET MQUAN
READ

REPLACE STOCK WITH STOCK - MQUAN FOR ITEM = MITEM

RELEASE MQUAN, MITEM

STORE '  ' TO SELECTION
STORE '  ' TO OKE
@ 20,10 SAY 'ANOTHER ITEM Y/N?' GET OKE PICTURE '!'
READ
ENDDO
**_____________________________________________________________________
    ELSE
   IF SELECTION='6'
STORE 'Y' TO OKE
DO WHILE OKE = 'Y' '
@ 20,10 SAY '
@  5,10 SAY '
@  7,10 SAY '
*_____________________________________________________________________
CLEAR
USE STOCK1

STORE '     ' TO MITEM
STORE 0 TO MQUAN
@ 5,10 SAY 'WHAT IS OUR ITEM CODE NUMBER ?  ' GET MITEM
READ

@ 7,10 SAY 'HOW MANY ITEMS ARE WE ORDERING ?  ' GET MQUAN
READ

REPLACE ORDER WITH ORDER - MQUAN FOR ITEM = MITEM

RELEASE MQUAN, MITEM

STORE '  ' TO SELECTION
STORE '  ' TO OKE
@ 20,10 SAY 'ANOTHER ITEM Y/N?' GET OKE PICTURE '!'
READ
ENDDO
**_____________________________________________________________________
    ELSE
   IF SELECTION='7'
STORE 'Y' TO OKE
DO WHILE OKE = 'Y'
@ 20,10 SAY '
clear
USE STOCK1
APPEND BLANK
```

```
@ 5,10 SAY 'ENTER PRODUCT NUMBER' GET ITEM
@ 7,10 SAY 'ENTER QUANTITY OF PRODUCT ORDERED' GET ORDER
@ 9,10 SAY 'ENTER RE-ORDER LEVEL' GET REORLEVEL

@ 11,10 SAY 'ENTER SUPPLIER CODE NUMBER' GET SUPPLIER
READ

STORE ' ' TO SELECTION
STORE ' ' TO OKE
@ 20,10 SAY 'ANOTHER ITEM Y/N?' GET OKE PICTURE '!'
READ
ENDDO
** ____________________________________________________________
                                    ELSE
** ____________________________________________________________

CLEAR

USE

@ 5,10 SAY 'END OF PROCESSING '

DELETE FILE STOCK1

quit
ENDIF
ENDIF
ENDIF
ENDIF
ENDIF
ENDIF
ENDIF
** ____________________________________________________________
ENDDO
** ____________________________________________________________
```

```
Structure of file A:STOCK.DBF

Number of records:  00010
Date of last update:  09/20/88
Primary use database
Fld     Name            Type    Width   Dec
001     ITEM             C       008
002     STOCK            N       008
003     ORDER            N       008
004     REORLEVEL        N       008
005     SUPPLIER         N       008
** Total **                     00041
```

The tasks

Participants should carry out the tasks on their own. If printers are shared between computers, the trainer should ensure that each client obtains an individual print-out.

The tasks should be carried out in the order presented. In order to obtain 100% accuracy, each course member may be required to repeat all the tasks until the print-outs are correct. In practice, trainers may have to exercise discretion as to whether or not some clients should continue to repeat the simulation.

Conclusion

Following the simulation, the discussion session might include the following:

- What are the practical advantages of keeping stock records on a computer?
- At what points could the operator make an error?
- How can errors be adjusted?
- What skills does the operator require to do the job?

- Would you make any changes to the structure of the stock file (*cf* print-out from Task One)?
- What additional information could be added to the stock file?
- If the stock file included this additional information, what additional tasks could the computer perform?

Clockwise One

CLOCKWISE plc

Situation

You take the role of a computer operator in a wholesaling firm called Clockwise which specialises in timepieces. The stock records are kept on a computer file; it is your job to keep the file up to date and provide various managers with information from it.

Your in-tray has eight items waiting for your attention. Work through them in the order given. The memoranda explain the tasks. The other sheets provide data, some of which you will not need, so choose carefully. The trainer will explain how to operate the computer. If you realise you have made a mistake, ask for advice.

When you have completed the tasks, compare your sheets of print-out with the trainer's correct answers. You can identify errors and their cause by tracing back through the tasks, using the print-out from Task Eight.

The system

Having followed the trainer's instructions about getting started, you will find that a 'menu' appears on the screen containing eight choices. You should:

- look through the task in the in-tray;
- decide which of the eight procedures on the menu is applicable to the task;
- select the appropriate menu number on the computer keyboard;
- key in the data requested by the computer.

When the task concerns obtaining a print-out it should be produced automatically.

INTERNAL MEMO

To	Computer Operator
From	Computer Supervisor
Date	
Subject	Quantity in stock

Please provide me with a print-out of entire stock file as at the time you receive this memo

INTERNAL MEMO

To	Computer Operator
From	Receiving Bay Clerk
Date	
Subject	Attached

Please record this delivery on the computer.

Thanks

(We already have these items on Stock File)

DELIVERY NOTE

From	A B Supplies Ltd Manchester House 150 Evanston Road LONDON WC1A 2UV
To	Clockwise 30 Leicester Square LONDON WC2H 7LE

Quantity	Your code number	Description	Price per unit(£)	Total Price
5	3	Alarm clock	15.00	75.00
2	1234	Alarm clock	10.00	20.00
30	343	Clock which runs backwards	25.00	750.00

RECEIVED BY G SMITH **TOTAL** 845.00

INTERNAL MEMO

To	Computer Operator
From	Branch Allocations Clerk
Date	
Subject	Attached

Please record the attached delivery to one of our customers.
(I think you call it a reduction of stock balance)

GOODS DESPATCHED FROM WAREHOUSE

From	CLOCKWISE 30 Leicester Square London WC2H 7LE
To	Duncan's (Retail Ltd) 151 North End East Ham London E6 2NH

Quantity	Our code number	Description	Price per unit(£)	Total price (£)
10	1233	Cuckoo clock	15.00	150.00
2	3	Alarm clock	17.00	34.00
5	6789	Chrome clock	18.00	90.00
			TOTAL DELIVERED	274.00

INTERNAL MEMO

To	Computer Operator
From	Buyer
Date	
Subject	New Stock Item

I have just ordered a new item of stock.

Please record this on the computer as follows:

Product No	see attached order form
Quantity on order	- - - -
Reorder level	25
Supplier No	8

Of course, we have none of these items in stock at present.

PURCHASE ORDER

To CAM Supplies Ltd 40 West Street Sheffield Yorks SH10 TTB	**No** 1234 **Date** **VAT Reg. No.**

Quantity	Code number	Description	Price per unit(£)	Total price (£)
25	9839	Clock	8.00	200.00

Terms	Per	Signed

INTERNAL MEMO

To	Computer Operator
From	Buyer
Date	
Subject	Item 1234

Please provide me with a print out of details of stock item 1234

INTERNAL MEMO

To	Computer Operator
From	Buyer
Date	
Subject	2 Order Forms attached

Please record the attached new stock orders on the computer.

Thanks.

PURCHASE ORDER

From BETA (supplies) Ltd 28 Galveston Road Ipswich IP7 1TL	**No** 1234 **Date** **VAT Reg. No.**

Quantity	Code number	Description	Price per unit(£)	Total price(£)
12	6789	Chrome clock	12.00	144.00
25	132	Cuckoo clock	18.00	450.00

Terms	Per	Signed

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PURCHASE ORDER

To	ACE (Supplies) Ltd 10 Terrace Estate YORK YO3 4TH

No
Date
VAT Reg. No.

Quantity	Code number	Description	Price per unit(£)	Total price(£)
10	3456	Bronze chimer	50	500
35	5436	Swiss pendulum	45	1575

Terms	Per	Signed

INTERNAL MEMO

To	Computer Operator
From	Buyer
Date	
Subject	Items for reorder

Please provide me with a print out of items which need re-ordering

INTERNAL MEMO

To	Computer Operator
From	Computer Supervisor
Date	
Subject	Stock file

Please give me a complete stock file as at the time you receive this memo

CORRECT OUTPUT TASK 1

ENTIRE STOCK FILE
****

	ITEM NO.	QUANTITY IN STOCK	QUANTITY ON ORDER	REORDER LEVEL	SUPPLIER NO.
000001	3	74690	7		
000002	1233	33	0	20	9
000003	1234	14	2	10	7
000004	3456	74	5	90	10
000005	6789	8	0	10	7
000006	87	32	15	35	11
000007	145	58	0	40	6
000008	132	44	0	50	7
000009	343	29	30	35	7
000010	5436	23	0	40	10

CORRECT OUTPUT TASK 5

DETAILS OF SINGLE ITEM OF STOCK
****

	ITEM NO.	QUANTITY IN STOCK	QUANTITY ON ORDER	REORDER LEVEL	SUPPLIER NO.
000003	1234	6	0	10	7

CORRECT OUTPUT TASK 7

ITEMS WHICH NEED REORDERING
****

	ITEM NO.	QUANTITY IN STOCK	QUANTITY ON ORDER	REORDER LEVEL	SUPPLIER NO.
000001	3	77	1	90	7
000004	3456	74	15	90	10

CORRECT OUTPUT TASK 8

ENTIRE STOCK FILE
****

	ITEM NO.	QUANTITY IN STOCK	QUANTITY ON ORDER	REORDER LEVEL	SUPPLIER NO.
000001	3	77	1	90	7
000002	1233	33	0	20	9
000003	1234	6	0	10	7
000004	3456	74	15	90	10
000005	6789	3	12	10	7
000006	87	32	15	35	11
000007	145	58	0	40	6
000008	132	44	25	50	7
000009	343	59	0	35	7
000010	5436	23	35	40	10
000011	9839	0	25	25	8

LET BYER BEWARE — CASE STUDY

(50 minutes)

SUMMARY

Bryan Byer has difficulties in implementing a new computer system. Course members learn from Byer's mistakes.

TARGET LEARNING GROUP

Managers or supervisors responsible for buying and installing a small IT system.

OBJECTIVES/OUTCOMES

By the end of the case study clients should be able to:

- recognise some of the problems involved in buying and implementing a small IT system;
- anticipate or overcome these problems in real life.

SIZE OF GROUP

Variable, syndicate exercise (groups of 5).

MATERIALS NEEDED

Byer One (case study)
Byer Two (hand-out)

PROCEDURE

- The trainer explains the objectives of the exercise and issues Byer One.
- The trainer divides the group into syndicates and asks them to designate a spokesperson to report back (5 minutes).
- Clients complete the task (30 minutes) and report back.
- The trainer summarises, identifying any issues that may have been omitted, and issues Byer Two (15 minutes).

TRAINER'S NOTES

Introduction/rationale

Although this case may appear contrived, it reflects the experience of many small businesses. You may assure course members that many Brian Byers exist and will continue to make such fundamental errors without training.

If you encourage clients to give examples from their own experience, the objectives of the exercise are more likely to be achieved.

The tasks

The following points could arise.

Task One

At the outset Byer should have:

- approached at least five suppliers and 'shopped around';
- investigated the purchase of a servicing contract for the hardware;
- found out more details concerning software support, such as emergency telephone number, call-out service;

- taken advice from other retailers and his trade association concerning his requirements;
- insisted that sales representatives and instructors avoid computer jargon;
- obtained the manuals earlier and enquired who else was on the course.

During the first three months:

Item (a) Byer should have checked the manual description against the label on the software disk/cassette. He should also have insisted upon a demonstration of the system, using his own figures, and noted the exact name of the package used.

Item (b) 90% of manuals are poorly written; therefore it is hardly Byer's fault, but that of the software house which is producing the package.

Item (c) This is Byer's mistake. Many small businesses have odd 'quirks' in their manual systems which can be accommodated by the individuals running them. This, of course, is more difficult when using a computer package designed as a basic system operable in many different circumstances. The manual systems need to be reviewed before the application of the new system, to ensure smooth implementation.

Item (d) Such a problem may lead to damage to the hardware (especially certain disk drives), corrupted storage and update of data. Sproggets should have installed the system correctly with a continuous mains supply. Byer should have been aware of a possible problem and insisted upon the proper installation, but he should also have carried out correct staff training.

Item (e) The introduction of fluids into any electronic device can be very damaging as they may cause short circuiting between electrical contacts. Again, Sproggets should have warned Byer, but he should have included the item in staff training, as mentioned under item (d). He should have investigated the cost of a service contract and anticipated the need for such insurance.

Task Two

Essentially Byer has two options:

- He can go back to Sproggets himself. But does he know enough? Will they confuse him with more jargon? How reliable are they? He is only a small sole trader, so will they put themselves out to help him when other, larger, businesses may be able to provide further profit potential (e.g. the furniture factory)?
- He can employ a consultant — *possibly your college*. Attendance on a course such as this may help, but it is only short. Consultancy can be expensive: is there a user group, local chamber of commerce, or trade association which can be of help?

Trainers can use this point to sell their own consultancy services.

'LET BYER BEWARE'

Brian Byer, aged 50, owns an independent jewellers. The business, inherited from his father, has a good reputation for quality merchandise and individual customer satisfaction.

Brian's son, aged 23, will probably inherit the business himself one day. Six months ago he was urging Brian to invest in a computer with accounts and stock control packages.

Brian contacted a small computer firm called Sproggets and arranged for a salesman to call and advise him. He arrived, armed with a book of glossy photographs, and was rather pushy in his approach. However, he assured Brian that the computer and two packages he could offer would give whatever accounting or stock control information Byer wanted.

Though Brian didn't actually know what he wanted, it seemed to be an ideal purchase, especially as he would be able to investigate what the computer could do for him on the one-day training course offered by Sproggets: he would be able to take advice from the instructor. The salesman told Brian that the software would run on the computer as it was 'IBM compatible' — whatever that might mean.

Byer bought the hardware and software for £5,500, and it was delivered, with the manuals, the day before the training course. On the course were five employees from a local furniture factory, all of whom had some knowledge of computing. The instructor explained to Byer how to install the computer and get the software running, but he had no retail experience. He referred Brian to the manuals (4 volumes, 250 pages each), and talked in computer language which only the other five understood at all.

During the following three months Byer found that:

(a) He couldn't get the stock control software running properly and the manuals were not very helpful (they referred to a 'version release 1.3' and he had bought a version release 1).

(b) The accounting package would not do what he wanted it to do. The manuals were not easy for him to understand: they used a lot of accounting terms which he was not used to, and a lot of computer jargon which he didn't understand at all.

(c) Byer's own accounting system was rather different from that of the computer. Although his system was not logical (his accountant had given up trying to make him change it), it worked very well because he was the one who controlled it. It now seemed that the computer was controlling him, and they were not speaking the same language.

(d) Whenever the sales assistants needed to engrave a piece of jewellery, they unplugged the computer and used the power socket for the engraving machine.

(e) The keyboard was damaged by a spilled cup of coffee and will cost £600 to replace as Byer does not have a service contract.

The tasks

1. Identify what Byer did wrong.
2. Recommend what he should do now.

'LET BYER BEWARE'

When considering the purchase of an IT system you should:

- think about:
  - WHY you want to computerise
  - WHAT you want to computerise

  in order to commit yourself to the idea;
- shop around among dealers and compare:
  - *price*
  - *quality* of packages available and the facilities on offer
  - *after-sales service* such as training (special retail/wholesale sessions?), advice if problems occur
  - *service contracts*, comparative prices, speed, guarantees;
- obtain information and advice from:
  - other retailers
  - Chambers of Commerce
  - trade associations
  - user groups
  - your local college;
- review your manual systems to make sure they are 'logical', in order to fit into the new computerised package, or vice versa;
- before purchase, insist upon a demonstration using your own figures and data;
- appraise the quality of the manual which comes with the package;
- ensure that the installation of the system is to your satisfaction, possibly taking advice from others;
- instruct staff correctly; it may well be they and not you who have to operate the system.

LIONS LIMITED — CASE STUDY

(150 minutes)

SUMMARY

A voluntary buying group plans a model stock control system. Within the role play learners change a business procedure and experience the management problems which could arise.

TARGET LEARNING GROUP

Managers and supervisors responsible for IT implementation in their firms.

OBJECTIVES/OUTCOMES

By the end of the exercise clients should:

- be aware of the range of human/management problems which may arise as a result of implementing an IT system;
- be able to present details of proposed IT systems to members of staff;
- have improved their interpersonal skills in managing change.

SIZE OF GROUP

Variable, but at least five.

MATERIALS NEEDED

- Flip chart and pens.
- OHP, transparencies and pens.
- Lions One (case study) — everybody.
- Lions Two (Task One) — everybody.
- Lions Three (CPOSSE system) — executives only.
- Lions Four (further information) — executives only.
- Lions Five A & B — executives only.
- Lions Five C & D — everybody.
- Lions Six (breakdowns of stores) — the owners concerned.
- Lions Seven (role plays) — as applicable.
- Lions Eight (Task Two) — everybody.
- Lions Nine (retail staff role plays — as applicable).

PROCEDURE

- The trainer explains the objectives of the exercise and issues Lions One and Two.
- The trainer allocates roles so there are two Head Office executives and at least three retailers per group (there are extra roles for additional course members);
- The trainer issues:
  - Lions Five (Appendices C & D only), Six and Seven to the retailers;
  - Lions Three, Four, Five and Seven to the Executives.

  (10 minutes).
- Clients prepare for role play (35 minutes).
- Clients carry out role play (35 minutes).
- The trainer leads a discussion on the experience and the conclusions (10 minutes).
- The trainer issues Lions Eight to everybody, and Lions Nine to the executives who now change roles and become members of the retailers' staff (5 minutes).

- The retailers prepare and carry out their presentation (45 minutes).
- The trainer leads a discussion on the experience and conclusions (10 minutes).

TRAINER'S NOTES

Introduction/rationale

This case study, using role play, is based on a voluntary group called Lions Ltd. The company comprises 1,900 small retailers who specialise in grocery and other food retailing. The company is introducing a new electronic point of sale and ordering system (CPOSSE) to overcome the difficulties experienced over the last two years with the present procedure.

The case is intended to be used by small retailers who are considering installing new technology. The objective is to simulate the human/management issues that can arise when introducing IT, in particular the factors affecting upward and downward communications within an organisation. It is not intended to give a grounding in the technology itself; indeed some previous knowledge of IT among the participants would be desirable.

In running the role play, trainers should bear in mind that not all course members will have taken part in such an exercise before. If you have doubts about any course members' abilities to role play, allocate them parts such as Ashoke Patel or Christopher Webb for the whole of the case: both roles are positive and straightforward.

In brief, the role play involves:

- Head Office executives presenting to and trying to persuade shop owners;
- shop owners presenting to and trying to persuade their staff.

In the second presentation, staff roles are played by the individuals who were previously Head Office executives. In this way each course member makes and receives a presentation.

Visual aids should be on hand for the participants to use. Trainers should ensure that they are fully conversant with the case before running it.

The tasks

It may well be that by the end of Task One not all the retailers (particularly Mrs Pask) will have agreed to accept the CPOSSE system on a trial basis. The executives have the freedom to compromise by offering a financing arrangement or reducing the length of the trial period.

Nevertheless, at the start of Task Two it must be assumed that all three retailers have agreed to pilot the new scheme.

Discussion

The following issues should be brought out:

- *Structure*. Because Lions is owned by its members, the Board may find it difficult to impose the CPOSSE system. Are there any implications for the structure of the business?
- *Technological communications*. It is likely that all course members will have experienced some difficulty in understanding, explaining and/or evaluating the CPOSSE system. How might they increase their expertise in this area?
- *Personnel issues*. What consideration did/should executives give to the individual circumstances of retailers? How well did, or could, the retailers, in their turn, introduce a new system, bearing in mind the apathy of most of their staff?

LIONS LIMITED

Situation

Lions Limited is a voluntary group of stores selling food and groceries. The company has expanded rapidly and there are now 1,900 outlets in England and Wales. It has its own brand name of goods — 'Maine' — which has enhanced the strong corporate image and quality of service (see Lions Five C for a list of product lines).

There are three warehouses — in Basingstoke (the biggest), Peterborough and Telford.

Retailers are classed as partners: they have a personal equity stake in the company — a condition of membership. They are therefore not controlled by the Head Office (also in Peterborough), which has a co-ordinating function. Every six months a selected panel of retailers meets executive staff at Head Office to discuss issues concerning merchandise range, promotion, sales and advertising. These retailers are the collective voice for all their fellows.

Existing system

The system for ordering stock is manual. It has proved time-consuming and extremely costly: delivery from the warehouses can take up to two weeks from the time of ordering, which is done by post. Approximately 90% of each retailer's stock holding is in 'Maine' products. The other 10% is bought from non-Lions suppliers. Retailers set their own basic stock levels.

Lions Limited set a recommended selling price for 'Maine' products. However, retailers control their own selling price, depending upon their desired margin. Hence there is no consistency within the group.

The executive management at Lions has decided to experiment with new technology and plans to introduce a new CPOSSE system. The Basingstoke warehouse and three retailers have been chosen to run a pilot scheme. A newsletter (Lions Five D) has already been sent to all retailers in the group, and the plan is to be discussed at the next six-monthly meeting.

TASK ONE

Lions executives are required to present to the selected retailers an outline of the new CPOSSE scheme at the six-monthly meeting.

The task of the executives is to persuade retailers to adopt the CPOSSE system for a trial period of six months.

The task of each retailer is to question the viability of its introduction to their shop, bearing in mind the roles allocated.

LIONS CPOSSE SYSTEM

System outline

CPOSSE has been designed to link with ROARDEL, a computerised warehouse and ordering system already installed in the Basingstoke warehouse.

CPOSSE has two main features:

- Goods can be scanned at the check-out, providing the retailer with up-to-the-minute stock and sales information.
- Reordering is done automatically by the system every week, and the order is transmitted directly to the warehouse by telephone line.

Systems objectives

- To reduce the ordinary/delivery cycle from the present eight days to three days;
- to reduce the retailers' 'stockout' from 9% to 3% of all lines;
- to reduce wastage and eliminate slow moving lines, using accurate sales forecasting based on comprehensive historic data. This should improve retailers' margins by 1%, based on similar systems introduced by other retailers.

Components of the CPOSSE system

The basic system comprises:

- two tills with hand-held scanners;
- one personal computer (PC), IBM compatible, with built-in modem, to be placed in the back office or stock room.

The cost is £9,000 plus VAT, plus approximately £500 for installation, provided there is a power source near the machines. The computer and the scanning tills must be linked by cable. For a full description of the components see Lions Five A.

The expected payback period is three years.

How the CPOSSE system operates

The PC is supplied, after installation, with a complete product/price file covering the 4,000 lines currently sold by Lions retailers. There is no need for the retailer to enter bar codes or prices: the file is updated twice a week from the warehouse via the telephone link. All the programs are menu-driven and have been designed specifically for ease of use.

A typical day would go as follows:

- At the start of the day the retailer will update the tills with the current product/price file held on the PC.
- At the end of the day a complete list of sales and returns is requested by the PC from the tills, and stored. The retailer 'backs up' the new data on floppy disk.
- During the day, if a delivery has been made, items are checked in using the scanner attached to the PC. The quantity delivered needs to be keyed in only if there is a discrepancy between the quantities ordered and delivered. This saves the retailer time.
- Shelf tickets providing product description, bar code number and price are produced every day, either during or outside working hours. This would be in response to either a change in price or delivery of merchandise not previously stocked.

Ordering goods

The retailer will do this once a week. Emergency orders are eliminated as the computer checks every line's stock position.

The ordering program displays the following information:

- product description;
- bar code number;
- Lions' stock code;
- retailer's cost price;
- Lions' recommended price;
- retailer's selling price;
- margin %;
- quantity in stock;
- quantity already on order;
- quantity to be ordered.

An example of the screen layout appears in Lions Five B.

The colour screen will initially highlight the quantity to be ordered. This figure will have been calculated by the ordering program to provide a minimum of two weeks' basic stock. It is based on the retailer's own historic sales data plus any central trends monitored by Lions' central computer.

If the retailer agrees with the quantity to be ordered, then this is simply confirmed. Otherwise the retailer enters his own stock order figure. If this is not a standard pack or case quantity, the screen will display the nearest alternative acceptable to the warehouse.

Only goods which need reordering are displayed on the screen, to minimise eye-strain. Once the order file has been worked through, the retailer can confirm the total order by sending it down the telephone line. If the Lions' warehouse computer is busy, it will dial the retailer's PC later. There is no need to remain with the PC.

Pricing

The product/price file allows the retailer to adjust the price of any line, dependent upon the desired margin. The screen will initially display the Lions' recommended selling price, unit sales and profit for the year to date.

Retailers can:

- accept the Lions' recommended price;
- enter their own price;
- enter their own margin.

The product/price file is automatically updated.

Management reports

At the end of each trading week a full report is produced, detailing:

- total sales;
- sales by product line;
- desired and realised margin;
- outstanding orders;
- basic stock level;
- rate of stock turn;
- VAT analysis.

Training

To enable Lions' retailers to start benefiting from the system quickly a training package has been arranged, consisting of:

- One day's initial training for shop owners, at the Basingstoke warehouse;
- Six × half days (18 hours) at the retailers' premises, for retailers and their staff. At least eight hours of this must be outside normal trading hours.

The inclusive cost of training will be £600 plus VAT.

ADDITIONAL INFORMATION

Costs of systems for the three pilot stores

Based on current trading information, Lions would like to introduce the following:

Sutton — 2 scanning tills + 1 PC (cost £9,000 + VAT + installation)

Reading — 2 scanning tills + 1 PC (cost £9,000 + VAT + installation)

Bath — 4 scanning tills + 1 PC (cost £18,000 + VAT + installation)

Financing arrangements

Retailers are expected to fund their own systems, given the cost benefits accruing to them. Lions will only arrange internal funding in exceptional cases; their internal cost is 12% of capital.

Future developments

Lions has already approached a software company to develop an accounts and payroll package to run on the retailers' PCs.

It will also be possible for the retailer to enter products not supplied by Lions onto the CPOSSE system. These will be stored in a separate product/price file which the retailer will have to update and maintain.

Tills

The keyboard has been specially designed for ease of operation. The number of keys has been reduced to 19 to ease operator training.

Each till has a memory sufficient to maintain details of up to 5,000 different product lines. Two swivelling colour screens are provided, one for the operator and one for the customer. The tills produce a high-quality, two-colour receipt for customers.

A battery back-up allows two hours independent operation of the tills in the event of a power failure. The computer is connected to the tills so that data can be exchanged at the start and end of each day.

Scanners

A CCD (Charge Coupled Device) scanner is attached to each till. The bar code on a product is scanned and the price displayed on the screen. There is no need to key in the price thus improving check-out throughput and eliminating operator keying errors.

For items without bar codes, the price can be entered manually via the keyboard.

A scanner is also connected to the PC to allow speedy and accurate check-in of deliveries.

Computer Hardware

An IBM PC/AT compatible personal computer.

Storage devices:	One 3.5" floppy disk drive, capacity 1.4 Mb. One 3.5" hard disk drive, capacity 20 Mb.
Keyboard:	separate function and numeric key pads. Editing key pad. Ergonomic design. Coiled cable attachment.
Colour monitor:	40 and 80 columns/25 lines.
Telephone modem:	built in; only an adjacent telephone socket is required.
Dimensions:	15"(W) x 12"(D) x 8"(H) The monitor is sited on top of the main unit. It is compact enough to fit on top of a standard desk or table.
Printer:	an EPSON MX80 dot matrix printer for producing shelf tickets and management reports.

Software

Operating system:	Microsoft PC DOS 3.3. This enables any IBM compatible software to be run on the PC in addition to that supplied.
Applications software:	All the specially written CPOSSE programs which enable you to use the whole system. No further packages are required.
Capacity:	The database of all existing product lines is 0.6Mb. This information will easily fit onto a floppy disk as back-up data, given its capacity of 1.4M. Thus, the number of lines would have to more than double before the PC's capacity was reached. This PC will control up to five scanning tills which we anticipate will meet all our retailing members' needs. However, should more processing capacity be required in the future, extra boards can be added easily.

Back-up Service

Hardware maintenance:	We have negotiated special terms with a nationwide computer service company. They offer a maximum response time of 24 hours and a mean response time of 4 hours, 6 days per week, 9am to 5pm. Annual charge £300 + VAT.
Software:	Lions Computer Systems offer free telephone advice 12 hours per day, 8am to 8pm.

Lions Five B

CPOSSE

LIONS' COMPUTER SYSTEMS

Product description	Bar code number	Lions stock code	Retailers cost price	Lions recommended price	Retailers current selling price	Margin %	Quantity in stock	Quantity on order	Quantity to be ordered
Italian plum tomatoes	5 010222 001040	79751	0.16	0.25	0.22	27.3	15	12	12
Red kidney beans	5 010098 073884	79840	0.23	0.35	0.29	20.6	4	12	0
Instant coffee 300g	5 000243 955308	61952	2.50	3.30	3.34	33.6	7	24	6
Toilet tissue	5 000132 004315	90042	0.45	0.85	0.70	55.7	10	20	10
Spaghetti 500g	5 010712 001023	61346	0.42	0.70	0.56	25.0	15	0	12

PRODUCT LINES STOCKED BY LIONS RETAILERS

Air Freshener
Baby Food & Care
Bacon
Baked Beans
Baking Aids
Beer
Biscuits
Bran
Bread & French Bread
Breakfast Cereals
Butter & Margarine

Cakes
Cheese
Coffee
Condiments
Confectionery
Cream
Cream Cakes
Crisps & Snacks
Custard

Desserts

Eggs

Flour
Frozen Confectionery
Frozen Fish
Frozen Meat & Poultry
Frozen Vegetables
Fruit, Canned
Fruit Juice

Gravy Products

Hairspray & Conditioner
Herbs & Spices

Ice Cubes

Jams & Marmalade

Kitchen Towels

Mayonnaise & Salad Cream
Meat & Fish, Canned
Milk, Evaporated, Low Fat & Long Life
Milk

Pasta
Pasta, Canned
Pastes & Spreads
Pet Foods
Pickles
Polishes

Razors
Rice

Salad
Salt
Sanitary Products
Sauces & Sauce Mixes
Shampoo
Skin Care
Soap
Soap Powder
Soft Drinks
Soups, Packet & Canned
Squashes
Sugar

Tea & Tea Bags
Tights
Tissues
Toilet Tissue
Toothpaste

Vegetables, Canned

Washing Up Liquid

Yoghurt

THE LIONS TALE

The official newsletter of Lions Ltd

Issue No. 46

Lions is planning to introduce, with your help, a new electronic stock ordering and control system over the next two years.

This will push Lions into the forefront of retailing technology. You, the retailer, are the most important person in this exciting new development, and it can only be done with your help.

Three stores have already been chosen to pilot the new scheme, on a trial basis, for six months.

Lions have specified state-of-the-art computer systems to help you, the retailer, stay ahead of the competition and increase your profits.

Further issues of our newsletter will keep you informed of the progress of this dynamic innovation.

For further details phone our Hotline on Peterborough (0733) 672672.

YOUR NEEDS ARE OUR CONCERN!

Lions Six A

BREAKDOWN OF STORES

Bath, Avon

Owner	Mr Mouyia
Square footage	2,300
Sales per annum	£299,759
Gross margin	£89,443
Staff	Mr Mouyia 3 full-time staff, 8 am to 4 pm 1 part-time member, 10 am to 2 pm 1 Saturday assistant, 9 am to 5 pm

The shop is in the main high street and very successful. The area is very affluent and the shop carries a full range of product lines.

Lions Six B

BREAKDOWN OF STORES

Reading, Berkshire

Owner	Mrs Pask
Square footage	1,500
Sales per year	£239,220
Gross margin	£54,231
Staff	Mrs Pask (full-time) Miss Pask (full-time) Two part-time members of staff, 12 noon to 4 pm One full-time member of staff, 8 am to 6 pm

The shop is in the centre of a middle-class housing estate. It is not near any main roads, but is surrounded by small tributary roads. The local bus company runs a frequent service around the estate.

Lions Six C

BREAKDOWN OF STORES

Sutton, Surrey

Owner	Mr Patel
Square footage	700
Sales per year	£193,187
Gross margin	£48,876
Staff	Mr & Mrs Patel (full-time) Mr Ashoke Patel (full-time) Two female members of staff (Part-time 10 am to 4 pm)
Opening hours	Monday to Saturday 7 am to 8 pm Sunday 10 am to 2 pm

The shop has recently moved to a shopping precinct. The train station to central London is 10 minutes walk from the shop. Sales are expected to increase in the new location.

THE EXECUTIVES OF LIONS

Chief Executive
Charles Thorneycroft Age: 54

He joined Lions nine years ago as Operations Director and has been Chief Executive for the past three years. He has extensive experience of retailing and wholesaling, mainly in food. Previous employers include Spar, Booker McConnell, Nurdin and Peacock, Fine Fare. All these posts were on the operations side and Thorneycroft's career pattern shows a steady progression in management seniority.

A former Chief Executive of the Institute of Grocery Distribution, a post he held for two years, he is an adviser to a number of industry bodies.

Though not by nature a devotee of technology, Thorneycroft has seen the rapid implementation of EPOS by the major multiples. Given their already advantageous cost base compared with that of small retailers, he is determined that his retailers shall not be left behind. He was largely responsible for initiating the CPOSSE project 14 months ago. A minority of board members feel that imposing a hitherto untried system on their members will cause at best resentment, and at worst severe disruption to the retailers and possibly to Lions.

Thorneycroft participates in an executive share option scheme related to annual profits' performance.

An experienced negotiator and highly capable presenter, Thorneycroft communicates easily with Lions' retailers.

THE EXECUTIVES OF LIONS

Information Technology Director
Melvyn G Maynard Age: 32

Appointed to the Lions Board as their first IT director four months ago, Maynard was head-hunted from a software house specialising in retailing systems where he had been for 30 months. He had previously specialised in real time systems with a major American computer manufacturer and spent four months in the United States working on a wholesale project. He also served on the working party of the Article Number Association.

Graduate, First Class Honours in Computing and Electronics from Imperial College, University of London, MBA from London Business School.

Although he has not previously worked for a retailer, he is highly regarded in the field of computerised retail systems. The Chief Executive has a wealth of contacts within the industry and Maynard was identified as a rising star by three colleagues. Even so, the appointment is for a contracted period of 12 months only, with a review by both parties at the end.

Thus Maynard is under pressure to implement a fully operational system, acceptable to the retailers, as soon as possible. The system introduced to the warehouse, ROARDEL, is still producing pricing errors of 3.5% and the problem is proving difficult to solve.

He is highly competent at relating his ideas to people of a similar intellectual calibre, even if they are not technically minded. However, he is quickly frustrated when people cannot keep up with the fast pace set, or interrupt his zealous approach with 'emotional' objections.

Lions Seven C

ROLE PLAY

Mr Patel
Owner, Sutton — Age: 48

You've been with Lions for six years and are very loyal. You feel that the introduction of the CPOSSE system will benefit your outlet greatly and that it is a good innovation. The initial expenditure is rather more than you can readily afford, but if it's for Lions you will raise the money somehow.

Lions Seven D

ROLE PLAY

Mrs Edwina Pask
Owner, Reading — Age: 52

You have recently been widowed. You and your husband joined Lions 10 years ago and until last year the business was doing very well. However, the opening of an out-of-town superstore has affected your business badly.

The initial cost of the new CPOSSE system is causing you great anxiety and you don't think you will be able to afford it unless you can get some financial assistance.

Your daughter, Judith, who bought into the business when her father died, is keen to press ahead but you suspect she may have some misgivings too.

Lions Seven E

ROLE PLAY

Mr Antony Mouyia
Owner, Bath — Age: 62

You are due to retire in eight months. You think the new development is a good idea and money is not a problem. However, you don't feel that an investment at this stage in the business is worthwhile. The payback time worries you because you hope to use your money to buy a retirement home in Eastbourne.

Lions Eight

TASK TWO

Having agreed to the six months' trial period, the three retailers must now introduce CPOSSE to their staff.

They must explain how the overall system works, its benefits, and the level of staff participation expected.

At the end of the role play each retailer is to summarise the objectives raised by members of staff and make proposals to overcome these.

Lions Nine A

ROLE PLAY

Ashoke Patel
Son, Sutton

Age: 19

You've been working with your father since leaving school three years ago. You instigated the recent move of the shop to a prime site. Like your father, you believe in the benefits of the new system and are very ambitious for the future development of the shop. In your opinion this new technology is only the first step.

Lions Nine B

ROLE PLAY

Alison Charter
Part-time Assistant, Sutton

Age: 26

You are single with a six-year-old son. You've worked for Mr Patel for 18 months and find the job very satisfactory. The hours suit you for taking and picking your son up from school. Your main duty (apart from the daily contact with the customers) is the ordering of stock. The manual system is easy to operate and the possible introduction of this new technology daunts you as you have no keyboard skills.

Lions Nine C

ROLE PLAY

Ms Judith Pask
Daughter, Reading

Age: 27

You bought into your parents' business when your father died a few months ago, and you work there full-time.

You want the introduction of the CPOSSE system, but on a small scale and on a trial basis. You believe that with the new technology you will have a better chance of meeting your competition head on, and increasing your margins. However, as no member of staff (including you) is technically competent to handle the new equipment, you are unsure how it would work in practice. Also, your mother is worried about the cost of installation, not least because recently business has been badly affected by the opening of an out-of-town superstore.

Lions Nine D

ROLE PLAY

Roy Preen
Full-time Assistant, Reading

Age: 19

You've worked for Mrs Pask for two months. You didn't want to work in food retailing and only took the job because the DSS threatened to take away your dole money. Mrs Pask has told you about the possible introduction of the new system, but you don't really care if they introduce the CPOSSE or not. Your only real enthusiasm is your football and the job doesn't interest you at all.

Lions Nine E

ROLE PLAY

Pat Hill
Full-time, Bath

You've worked for Mr Mouyia for two and a half years as a stock controller. You always tend to order a little bit extra of the most popular lines because you feel it is better to have too much stock than not enough.

With the introduction of this new system you feel that Mr Mouyia will start to encroach upon 'your' side of the business and you will lose control.

Lions Nine F

ROLE PLAY

Christopher Webb
Full-time, Bath Age: 39

You have recently finished a computer course at evening class. You think the CPOSSE system is a wonderful idea. With the size of the shop, you think it will make life much easier. You hope to approach Mr Mouyia with a bid to buy out the business.

Lions Nine G

ROLE PLAY

Wendy Hunt
Saturday only, Bath Age: 18

You are a student. You've worked at the shop for two weeks. The job is important to you because it is helping to supplement your grant. You don't have much free time during the week because of your studies. You think the CPOSSE system is a good idea but you don't know when you are going to have the time to be trained on it.

VI. ADDITIONAL ASSIGNMENTS

This section contains four simple assignments which can be used with students in practical 'hands on' sessions. These are based on the assignments for the RSA Computer Literacy and Information Technology (CLAIT) scheme, details of which may be obtained from RSA Examinations Board, Murray Road, Orpington, Kent BR5 3RB.

They could be used to supplement a short course of the type outlined in Section IV of this document, or alternatively as part of any other appropriate distribution course.

DATABASE

1. Format a disk.

2. Load the database package which you are using to record the details of stock held in one of your store rooms.

3. With reference to the following information, create a database file with the following fields (use abbreviations where appropriate).

Field Item	*Key*	
Department	MW	Menswear
	FU	Furniture
	TS	Toys
	LF	Ladies Fashion
Description		
Code		
Stock Quantity		
Price		
Reorder	Y	Yes
	N	No

4. Enter the following details.

Department	*Description*	*Code*	*Quantity*	*Price*	*Reorder*
MENSWEAR	SHIRT	GWO2	8	32.95	Y
MENSWEAR	UMBRELLA	GWO4	5	17.95	Y
MENSWEAR	RAINCOAT	GW10	3	95.90	Y
MENSWEAR	TROUSERS	GW14	6	42.95	N
FURNITURE	SINGLE BED	SA10	2	320.00	Y
FURNITURE	DOUBLE BED	SA04	8	495.00	N
FURNITURE	WARDROBE	SA09	4	135.00	N
FURNITURE	DOUBLE BED	SA14	8	575.00	N
TOYS	TEDDY BEAR	TB07	4	17.00	Y
TOYS	TEDDY BEAR	TB15	16	9.95	Y
TOYS	MONOPOLY SET	TB24	6	6.95	Y
TOYS	FOOTBALL	TB30	12	12.95	N
LADIES FASHION	BLOUSE	PR05	4	49.95	Y
LADIES FASHION	SKIRT	PR44	6	45.00	Y
LADIES FASHION	DRESS	PR18	8	65.00	Y

Ensure that you have used the appropriate codes.

5. Load paper into your printer, set to top of form, check the printer is on-line and print the contents of the file.

6. Add the following two items of stock to your database file.

TOYS	DOLL	TB11	40	12.00	N
LADIES FASHION	HAT	PR23	12	25.95	N

7. Men's umbrellas are to be removed from sale. Delete that record.

8. FOOTBALL was an incorrect entry. It should have been written RUGBY BALL so amend the record accordingly.

9. Sort the records alphabetically using the CODE.

10. Search the file for all the items in stock which do not require to be reordered and print out the information on these records.

11. Search the file for all the items in the MENSWEAR department which cost more than £10.00 and require to be reordered and print out the DESCRIPTION, PRICE and QUANTITY only.

12. Copy your file onto another disk.

13. Delete your file from the original disk.

14. Close down the system.

WORD PROCESSING

1. Load paper into the printer and set to the top of the form.

2. Start up the system and load a word processing package.

3. Open a file and enter the following text:

The Fashion Store
123 Parade Road
ANYTOWN
NE2 5LT

10 June 19--

Dear Sir

You were recommended to us by a mutual contact who assured us that you offered prompt service and good terms. This has not proved the case with our first (and last) order with you.

Three weeks ago we placed a telephone order with Mr Johnson in your Sales Department for:

20 Burgundy 'Slimwear' Reversible Jackets (with detachable collars)
10 Black 'Slimwear' Reversible Jackets (with detachable collars)
30 White 'Hotshot' Leisurewear Shorts
20 Black 'Hotshot' Leisurewear Shorts

We were assured by Mr Johnson that these would be with us within the week. On the Friday following expected delivery, the order still had not arrived and I once again spoke to Mr Johnson. He explained that there had been some administrative delay and that the goods would be with us on the following Monday. On the following Wednesday a box arrived from your company. This did not contain the goods ordered but an assortment of 'Boy and Girl' T-shirts! These were sent back to you with a letter cancelling the order. However we have since received an invoice from you for the original order although we have not received the goods and have indeed obtained the items from elsewhere.

Please do not continue to harass us with demands for goods that we have never received.

We would be happy if we never heard from you again.

Yours faithfully,
Fred Upp
Purchasing Manager

4. Print out the draft letter.

5. Change the date to today's date.

6. Add the following information at the left margin, between the date and 'Dear Sir':

The Manager
Bray Bros
1 The Way
ANYTOWN
NE1 3TT

7. Delete the word 'good' in paragraph 1 and insert 'reasonable'.

8. Delete the last paragraph, the one that begins 'We would be happy...' from the text.

9. Insert paragraph 3 (the order) by 5 characters at both margins.

10. Justify the right-hand margin of this paragraph, leaving the rest unjustified. Reform the paragraph in double line spacing.

11. Print out this letter.

12. Save the text.

13. Format a blank disk (OR select an empty user area).

14. Copy the saved file onto the newly formatted disk (OR copy a file from one user area to another).

15. Examine the directory to ensure that this file has been successfully copied.

16. Load the copied text.

17. Delete the file originally saved (refer to step 12).

18. Close down the system.

SPREADSHEET

1. Power up the system and load the spreadsheet package that you will be using to enter details on the expense accounts of travelling sales personnel in your business.

2. Starting in the first column, input the following headings:

SALES REPRESENTATIVES EXPENSE DETAILS

NAME	*JAN-MAR*	*APR-JUN*	*JUL-SEP*	*OCT-DEC*	*TOTAL*
SMITH T					
VANNER E					
BRADLEY K					
POTTS C					
COLE C					
COLE S					
WHITE S					
TOTAL					

3. Enter the following data:

NAME	*JAN-MAR*	*APR-JUN*	*JUL-SEP*	*OCT-DEC*	*TOTAL*
SMITH T	40.00	35.00	25.50	10.00	
VANNER E	35.50	40.00	30.75	10.25	
BRADLEY K	38.75	25.50	40.00	10.75	
POTTS C	52.15	24.75	45.50	13.75	
COLE C	32.00	12.25	40.75	8.75	
COLE S	21.75	15.75	40.00	11.95	
WHITE S	12.95	35.00	39.50	8.75	
TOTAL					

4. Load the printer with paper, set to top of the form and print the spreadsheet.

5. The JAN-MAR expenses for POTTS C should read 60.00. So make the necessary correction.

6. COLE C has decided to leave the company so delete his record from the file.

7. (i) Use a formula to total the first quarter expenses, put the figure in the TOTAL row, and replicate the formula to generate the total for each of the other three quarters.

   (ii) Use a formula to generate the total expenses for each person. Print these formulae.

8. Save the file. Print the table in integer format.

9. Recall the file and insert a new row between VANNER and BRADLEY and enter the following data:

PATEL K	40.00	45.35	25.50	15.00

(Ensure that the formulae incorporate these new figures.)

10. Use a formula to generate an overall TOTAL. Place the answer in an appropriate place on your spreadsheet.

11. Print out the spreadsheet showing the numeric values in pounds and pence.

12. Make a back-up copy of your disk.

13. Delete the original file from the first disk.

14. Close down the system.

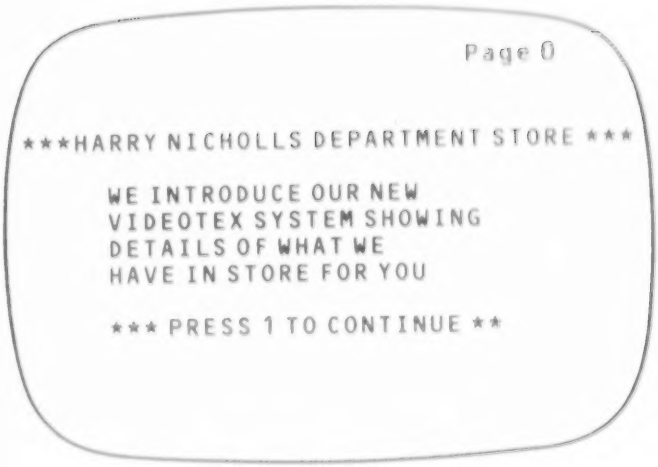
VIDEOTEX

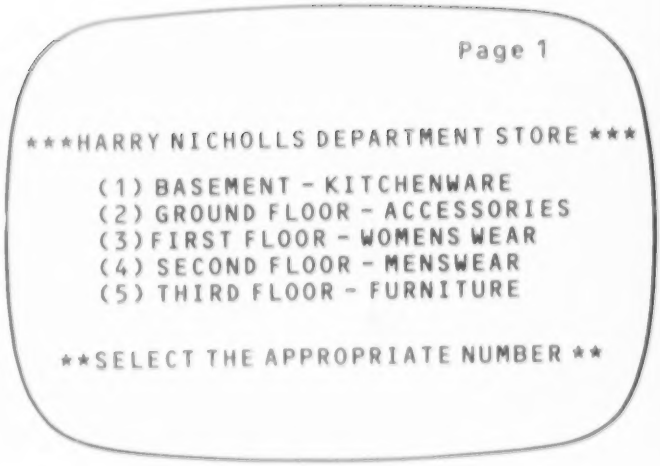
1. Logon to the local viewdata system which has been set up by the department tutor.
2. Find the Ground Floor Accessories menu and note down the second and third items.
3. Access the Second Floor Menswear menu and note down the first two items.
4. On PAGE 1 add another item to the main index:
   (e) TOP FLOOR - SPORTS GOODS
5. Exchange the routing of PAGES (2) AND (3).
6. List PAGE 1 accordingly.
7. Compose PAGE 16 below using three colours including a background filling. Display the heading ***HARRY NICHOLLS DEPARTMENT STORE*** in double height characters. Make the words TOP FLOOR flash and use graphics to create a line underneath. Print out this page.

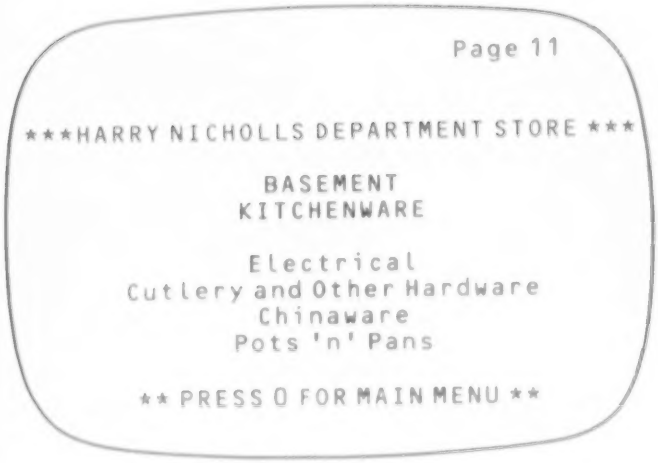
```
                                        Page 16

***HARRY NICHOLLS DEPARTMENT STORE***
                    TOP FLOOR
                    =========
                  SPORTS GOODS

                      Racquet Sports
                      Football, Rugby etc.
                      Ski Goods
                      Others

                ** PRESS 0 FOR MAIN MENU **
```

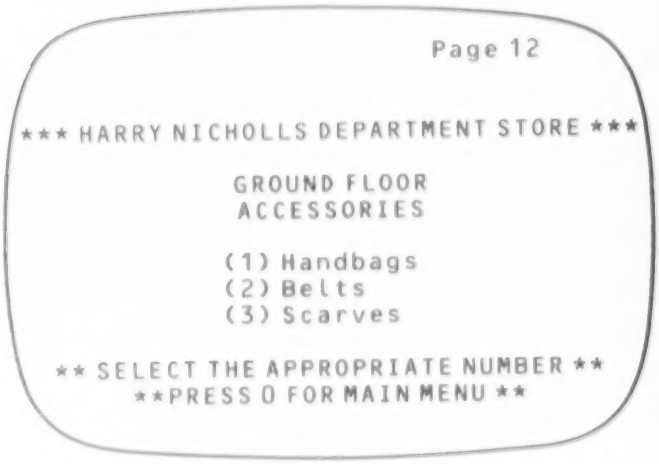
8. Log off the system.

Tree diagram of Viewdata Assignment


Page 0
***HARRY NICHOLLS DEPARTMENT STORE ***
WE INTRODUCE OUR NEW
VIDEOTEX SYSTEM SHOWING
DETAILS OF WHAT WE
HAVE IN STORE FOR YOU
*** PRESS 1 TO CONTINUE **


Page 1
***HARRY NICHOLLS DEPARTMENT STORE ***
(1) BASEMENT - KITCHENWARE
(2) GROUND FLOOR - ACCESSORIES
(3) FIRST FLOOR - WOMENS WEAR
(4) SECOND FLOOR - MENSWEAR
(5) THIRD FLOOR - FURNITURE
**SELECT THE APPROPRIATE NUMBER **


Page 11
***HARRY NICHOLLS DEPARTMENT STORE ***
BASEMENT
KITCHENWARE
Electrical
Cutlery and Other Hardware
Chinaware
Pots 'n' Pans
** PRESS 0 FOR MAIN MENU **


Page 12
*** HARRY NICHOLLS DEPARTMENT STORE ***
GROUND FLOOR
ACCESSORIES
(1) Handbags
(2) Belts
(3) Scarves
** SELECT THE APPROPRIATE NUMBER **
**PRESS 0 FOR MAIN MENU **

Page 121
*** HARRY NICHOLLS DEPARTMENT STORE ***
GROUND FLOOR
ACCESSORIES
HANDBAGS
Crocodile
Leather
Non-Leather
** PRESS 0 FOR MAIN MENU **

Page 122
*** HARRY NICHOLLS DEPARTMENT STORE ***
GROUNDFLOOR
ACCESSORIES
BELTS
Leather
Non-Leather
** PRESS 0 FOR MAIN MENU **

Page 123

*** HARRY NICHOLLS DEPARTMENT STORE ***

GROUND FLOOR
ACCESSORIES
SCARVES

Silk
Cotton
Woollen
Others

** PRESS 0 FOR MAIN MENU **

Page 13

*** HARRY NICHOLLS DEPARTMENT STORE ***

FIRST FLOOR
WOMENS WEAR

Lingerie
Day Wear
Evening Wear

** PRESS 0 FOR MAIN MENU **

Page 14

*** HARRY NICHOLLS DEPARTMENT STORE ***

SECOND FLOOR
MENSWEAR

Suits
Jackets
Trousers
Accessories

** PRESS 0 FOR MAIN MENU **

Page 15

*** HARRY NICHOLLS DEPARTMENT STORE ***

THIRD FLOOR
FURNITURE

(1) Living Room
(2) Bedroom

** SELECT THE APPROPRIATE NUMBER **
**PRESS 0 FOR MAIN MENU **

Page 151

*** HARRY NICHOLLS DEPARTMENT STORE ***

THIRD FLOOR
FURNITURE
LIVING ROOM

Sofas
Chairs
Tables
Others

** PRESS 0 FOR MAIN MENU **

Page 152

*** HARRY NICHOLLS DEPARTMENT STORE ***

THIRD FLOOR
FURNITURE
BEDROOM

Single Beds
Double Beds
Fittings

** PRESS 0 FOR MAIN MENU **

QUESTIONNAIRE
The use of Information Technology in Distribution

Please complete the following:

Organisation Name

Organisation Address

Number of Outlets

Completed by

Title

Telephone Number

Date completed

Question 1

How many staff do you currently employ? Please tick

Please include managers and part-time staff (2 part-time =1)

0 - 10 ☐ 11 - 25 ☐ 26 - 50 ☐ 51+ ☐

Question 2

Please indicate which kind of retail or wholesale business you operate.

Food	Please tick	Non-Food	Please tick
Grocery retailers	☐	Confectionery, tobacco and newsagents	☐
Dairymen	☐	Clothing, footwear and leather goods	☐
Butchers, Poulterers	☐	Off licences	☐
Fishmongers	☐	Household goods (textiles, carpets, furniture)	☐
Greengrocers, Fruiterers	☐	Electrical and music goods	☐
Bread and flour confectioners	☐	Hardware, china and fancy goods	☐
		Other non-food business	☐

Please describe

CONT ...

Question 3

Which of the following computer-based or information technology systems do you currently use in your business?
For each system indicated, please describe alongside the hardware manufacturer, the model number and the software package used (where appropriate)

Electronic Cash Register ☐
Stock Control System at Point-of-Sale ☐
Stock Control System using Stock Counts (e.g. M50) ☐
Purchase Ledger Systems ☐
Stock Receiving Systems ☐
Pricing/Ticketing/Kimball Tags ☐
Customer Accounting & Credit Systems ☐
Credit Card Validation Systems ☐
Budgetary Control Systems ☐
Payroll ☐
Prestel/Viewdata Systems ☐
Word Processing ☐
Others, please describe

None ☐ **Please go to question 6**

Question 4

When you installed the systems outlined in question 3, which of the following Training Provisions were used?

Please categorise according to the level of staff trained

Please tick appropriate boxes

	Management /Executive	Supervisory	Selling Staff	Non-selling Staff
Internal company training	☐	☐	☐	☐
Manufacturer support	☐	☐	☐	☐
Distributor support	☐	☐	☐	☐
College	☐	☐	☐	☐
Polytechnic/University	☐	☐	☐	☐
Trade Association	☐	☐	☐	☐
External consultancies/Private training agencies	☐	☐	☐	☐

Other, please describe

CONT ...

Question 5

Did the training provision meet your needs? Please tick

	YES	NO	Please comment
Management/Executive	☐	☐	
Supervisory	☐	☐	
Selling Staff	☐	☐	
Non-selling Staff	☐	☐	

Question 6

If you are considering installing information technology within the next two years please tick the appropriate applications.

Electronic Cash Register ☐

Stock Control System at Point-of-Sale ☐

Stock Control System using Stock Counts (e.g. M50) ☐

Purchase Ledger Systems ☐

Stock Receiving Systems ☐

Pricing/Ticketing/Kimball Tags ☐

Customer Accounting & Credit Systems ☐

Credit Card Validation Systems ☐

Budgetary Control Systems ☐

Payroll ☐

Prestel/Viewdata Systems ☐

Word Processing ☐

Others, please describe

None ☐ **Please go to question 9**

CONT ...

Question 7

Do you anticipate any difficulty in introducing computer-based or information technology systems more widely into your business? If so, please tick

Deciding on suitable applications ..... ☐

Obtaining finance ..... ☐

Obtaining suitable training ..... ☐

Recruiting suitable trainees ..... ☐

Persuading staff to adopt new methods .... ☐

Other, please describe

Question 8

If a suitable training course were available to you and your staff, which of the following times do you think would be the most convenient?

	Management /Executive	Supervisory	Selling Staff	Non-selling Staff
During the day	☐	☐	☐	☐
In the evening	☐	☐	☐	☐
At the weekend	☐	☐	☐	☐
By correspondence course	☐	☐	☐	☐

Question 9

What do you see as your future requirements for the training of staff in computer-based or information technology systems at the levels indicated?

	Please comment
Management/Executive	
Supervisory	
Selling Staff	
Non-selling Staff.....	

Thank you for completing this questionnaire.
Please return in the FREEPOST envelope provided.

QUESTIONNAIRE
The use of Information Technology in Distribution

Please complete the following:

Business/College Name & Address

Completed by

Title

Telephone Number

Date completed

Question 1

a) Do you provide education or training in information technology for commercial concerns and/or business students/trainees? Please tick

YES ☐ **Please go to question 2**

NO ☐

b) Please give your reasons for not offering such courses.

No perceived demand ..... ☐

Not appropriate to you organisation .. ☐

Lack of specialist teaching staff ..... ☐

Lack of hardware/software ..... ☐

Other (please specify)

Please go to question 4

CONT ...

Question 2

Please indicate the type of provision you offer and whether any of these activities are especially for the distributive trades (retailing/wholesaling)

	Distributive Trades	Other Businesses
Short courses	☐	☐
Longer courses open to more than one organisation	☐	☐
Longer courses designed for one particular organisation	☐	☐
Training packages for purchase	☐	☐
Training packages for hire/rental	☐	☐
Consultancy or advisory service	☐	☐

If possible please enclose details of available courses/conferences.

Question 3

Do you offer courses leading to the following qualifications?

If so, please enter approximate numbers of participants in the appropriate box.

	Distribution students	Computing students	Business Studies students
BTEC certificates/diplomas	☐	☐	☐
RSA Certificate in Computer Literacy	☐	☐	☐
City & Guilds certificates/diplomas	☐	☐	☐
Pitman courses	☐	☐	☐

Other qualifications ...

CONT ...

Question 4

a) If course materials were available which would enable you to develop information technology oriented courses specifically for the distributive trades would you consider using them? Please tick

YES ☐

NO ☐

b) If you have ticked 'YES', which of the following would be of particular interest?

Packages which would enable you to offer a consultancy service to small businesses ..... ☐

Information on staff development ..... ☐

Information on designing courses ..... ☐

Information on marketing courses ..... ☐

Lecture notes/Overhead Projector transparencies ..... ☐

Assignments which incorporate the physical use of a computer ..... ☐ *

Assignments which do **not** incorporate the physical use of a computer ... ☐ *

c) If you have ticked either of the two boxes (marked *), which computer applications would you require? Please tick

General introduction to information technology for small business owners .. ☐

Stock control system at point of sale ..... ☐

Stock receiving system ..... ☐

Purchase ledger system ..... ☐

Customer accounting and credit systems ..... ☐

Budgetary control systems ..... ☐

Payroll ..... ☐

Prestel/Viewdata ..... ☐

Word processing ..... ☐

Other (please describe) ☐

Thank you for completing this questionnaire.
Please return in the FREEPOST envelope provided

APPENDIX III
ALTERNATIVE SOURCES OF FUNDING

Money for research and development

The Training Agency
This is a major source of funding and most of that funding is administered locally through regional centres, in negotiation with LEAs. You should contact either your local Training Agency centre or your LEA.

Local Education Authority Training Grants Scheme (LEATGS)
These grants are specifically for staff development and could be used to enable staff to obtain first-hand experience of IT in the distributive trades.

The Distributive Industries Training Trust (DITT)
The Trust will consider applications for funds for projects to further the training opportunities of employees in distribution. This project is a case in point.

Training and Enterprise Councils (TECs)

Local TECs might well see this sort of provision as appropriate to their range of activities. It might well prove worthwhile contacting your local TEC to suggest collaboration.

Training grants for businesses

The Training Agency funds the National Priority Skills Scheme (NPSS). Grants for retailers are administered by the National Retail Training Council. Support includes helping employers meet the costs of staff undertaking particular training.

Employers may also be eligible for support from *Local Enterprise Funding*. Colleges with PICKUP units can help here.

Consultancy grants for businesses

As part of their Enterprise Initiative, DTI will, under certain conditions, pay half the costs of consultancy (two-thirds in assisted or urban programme areas) for firms with fewer than 500 employees.

Under its Research and Technology Initiative, DTI supports collaborations between employers and colleges. It might well back an IT programme for local firms in distribution.

APPENDIX IV SOFTWARE AND HARDWARE OPTIONS

This appendix contains a summary description of systems of particular interest to distribution. Where possible, prices have been included as a guide only. There are many other systems available, but limited space precludes their inclusion. Although the information given here was correct at the time of writing, this is a rapidly developing area and some of the details given may now be out of date.

Beanstore

This integrated system is designed for teaching and not for sale to the general public.

It would take many hours to teach the whole item, but for short courses it can be used to simulate an Electronic Point of Sale (EPOS) system and demonstrate what happens to the data collected for stock control and accounting systems.

Cost: Text: £40.00
Software: £600 including training assignments

Address: Beanstore
Thames Polytechnic
Wellington Street
London SE18 6PF

Telephone: 081-854 2030 ext. 539

Bleep 2000

The system, named RETAIL CONTROL, is a software package that links the powerful Casio cash register to a computer of a company's choice. The cash register records all sales information as it is entered. At the end of the day it automatically sends data to the computer which can be placed in the branch office or at head office, leaving it free during the day to do other business.

Immediate reports: At the touch of a button the client knows the cash taken; item by item sales; profit on each item; total daily, monthly and yearly profit; instant stock values and quantities by product or department; best- and worst-selling products by quantity; value percentage gross profit, either monthly or yearly to date.

Staff performance: This can be monitored using the staff summary. This shows, in descending order, the number of sales, sales value, average value per sale for the current month and year to date. Staff commission can be calculated as a percentage of individual sales, or of store sales, or a combination of both.

Reordering: The reorder summary shows every item to be reordered, current stock levels, and the quantity already on order. It also calculates the cost of all purchases. All items are grouped by supplier.

Purchases: Invoices have to be entered item by item as and when they are received. The computer will tell how much the item cost last time, how much profit is being made, how much it should be sold for, and the profit needed.

Cost:	Tills Series 204	£1400
	Tills Series 7000	£1695
	Multi user	£2050
	Single user	£1040
	Communications software linking into hardware	£ 150

Address: Bleep 2000
1 Adpar Street
London W2

Telephone: 071-724 2000

Datalogic (UK) Limited

They produce a number of software packages for retailers, including:

Datapen: This is an intelligent interface capable of emulating the keyboards of a wide variety of computers. A transparent operation, no power connection is required, no slot is occupied and no special software is needed.

It is configurable for reading all the most common bar codes. It is easy to use and consumes very little power.

Datapen is used for all data entry problems. It can be inserted between the keyboard and the computer, making it possible to enter data in the system with a single scan of the bar code pen.

Hand-held digital bar code readers P10 and P31: They can be used for keyless data entry portable terminals, shopfloor data collection, point of sale recording, order processing.

Cost: Wand readers and decoders from £400 up to £6000 for high-speed laser scanners.

Address: Datalogic (UK) Ltd
Redbourne Industrial Park
Redbourne
Herts.

Telephone: 0582 85 4344

Fortronic Word Processing Systems Limited

F75 Electronic Funds Transfer The terminal consists of three parts:

1. *cashier unit*: this is a powerful microcomputer with customer display, magnetic card reader and fully configurable keyboard. It is programmable, with battery backed memory for data storage;

2. *printer*: this incorporates a 40 column receipt/audit roll printer, capable of handling 2 or 3 part paper;
3. *pin pad*: the card holders' interface to the EFT System is via the pin pad which is used to enter the PIN number and account details.

It is also the main security module performing the encryption and message authentification functions. It is available online and offline and with different degrees of tamper resistance.

Cost: £1400 to install and £600 per annum running costs

Address: Fortronic Word Processing Systems Ltd
204 Europe House
World Trade Centre
London E1

Telephone: 071-265 0531

Logica

One of the most popular of the relational database developments on the market today is RAPPORT. As well as supporting the fully relational structure, it has a powerful 4GL prototyping tool and structured query language (SQL) associated with it.

Management information is stored in structured tables, each table having the potential to link with others in order to reflect the particular access needs of a whole range of users.

Rapport has developed its own version of SQL called RaSQL. It is a full relational query language which can manipulate stored data in a straightforward manner, much nearer to everyday language than most so-called query languages.

Rapport also has an applications prototyping module called RADIDE which facilitates the rapid development of prototype systems shells by non-technical users. Such prototyping can be essential during the design of specialist systems where individual users will be able to express their ideas directly through RADIDE.

In order to implement a full working system, the prototyped shell can then be developed using a straightforward Cobol/Pascal interface.

Cost: Software, including RaSQL and RADIDE plus basic multi-user licence — £3500

Address: Logica
64 Newman Street
London W1

Telephone: 071-637 9111

McDonnell Douglas Information Systems

VIEWBASE is an interactive videotex system which can be configured to act as the front end to a range of information systems.

Viewbase was originally developed for the McDonnell Douglas M6000/M9000 information system for Debenhams plc. BHS have also used the system to facilitate the distribution of information across their different sites.

It allows easy two-way communication between remote and local information systems. Using the menu selection, a range of options provides the route required to perform a given task. All interaction takes place using colour graphics.

Depending upon the expertise of the user, it is possible to communicate via the operating system in order to develop specialised applications, or invoke pre-coded reports for standard work.

As well as Viewbase, one can use the electronic mail system ENVOY which employs the same videotex environment. Envoy allows information to be transmitted or received from another user who has the required communications protocols.

The Viewbase/Envoy system offers easy and accessible information retrieval and communication for a multi-site organisation.

Cost:	Basic Viewbase Software	£1500
	Envoy Electronic Mail Software	£ 250

Head Office
Address: McDonnell Douglas Information Systems
Marylands House
Hemel Hempstead
Herts HP2

Telephone: Please consult your local telephone directory for the sales office nearest to your location.

Omron Terminals (UK) Limited

The FT10 Electronic Funds Transfer Terminal provides all the features essential for efficiency and security in modern shared EFT networks. The FT20 series is a further development which may be of interest.

Retail System Terminal (RST)

The RS 5500 series can operate at all levels from a stand-alone terminal to a fully integrated computer system.

The RS 8500 series allows development from a stand-alone terminal to a fully integrated computer network. Such a network may consist of master/satellite terminals, various peripheral devices, a back room computer and a host computer.

Each terminal is equipped with a high-speed, durable dot-matrix printer suitable for busy check-outs.

A wide range of reports may be accessed enabling the trader to select the exact information required to improve the smooth running of the business.

Address: Omron Terminals (UK) Limited
Victory House
Cox Lane
Chessington
Surrey

Telephone: 081-974 2166

Spaceman

This is a management tool which takes a wide range of information to help the user make the best use of available space. Spaceman will produce as output various financial ratios together with an accurate planogram.

Specifically, Spaceman will:

— propose changes of stock levels on display or in the stockroom;

— suggest proper inventory levels; show net change in lost sales, inventory costs as a result of overstocks and understocks;

— allocate space in relation to decision rules supplied by the user.

The user can view and manipulate the resultant planogram with graphics mode screen.

Data for the planogram can be downloaded from a mainframe or using a Lotus 1-2-3 interface from a PC.

The design characteristics of Spaceman allow it to take a dynamic as well as a static view of the store. By modelling the way products move in and out of the premises, Spaceman recommends inventory levels which will achieve the highest service level to customers at the lowest inventory costs.

Cost: Basic System £350

Address: Logistics Data Systems Int.
Stratton St Margaret
Swindon
Wilts SN3

Telephone: 0793 828222

APPENDIX V
PERIODICALS READING LIST

Campaign Magazine	Weekly
Co-op Marketing & Management	Monthly
Co-op Retail Review	Monthly
Drapers Record	Weekly
Fashion Weekly	Weekly
Marketing Magazine	Weekly
Menswear Magazine	Weekly
Micro Decision	Monthly (complimentary)
Mintel Reports	Periodically
Retail Automation Magazine	Bi-monthly
Retail Business	Monthly
Retail Technology Magazine	Monthly
Supermarketing Magazine	Weekly
The Grocers Magazine	Weekly

APPENDIX VI
REFERENCE MATERIAL

The Bookshop Computer Guide, Booksellers Association, 1988

The College Does it Better, Longman for FEU, 1987

The Guardian Guide to Running a Small Business (Ed. Clive Woodcock), Kogan Paul

Marketing FE, A Feasibility Study, Longman for FEU, 1985

Marketing VET in Distribution, FEU, 1988

Paying for Training, HMSO

The Retail Directory, Newman Books Ltd.

The Small Business Guide (Colin Barrow), BBC

Small Computers in Small Companies, Department of Marketing, University of Lancaster

Technology and Training in the Distributive Trades, Distributive Trades EDC.

Training for the 1990s, HMSO

APPENDIX VII
SOME USEFUL ADDRESSES

College for the Distributive Trades (CDT)
30 Leicester Square
London WC2H 7LE
071-839 1547

Distributive Industries Training Trust (DITT)
5 Bridge Street
Bishop's Stortford
Herts CM23 2JU
0279 506125

Distributive Trades Technology Advisory Centre
University of Stirling
Stirling FK9 4LA
Tel 0786 70080

Further Education Unit (FEU)
2 Orange Street,
London WC2H 7WE
071-321 0433

National Association of Colleges in Distributive Education and Training (NACDET)
Landseer House
21 Charing Cross Road
London WC2H 0ES
071-839 3689

National Retail Training Council (NRTC)
385 Oxford Street
London W1R 2NB
071-355 4825

National Wholesale Training Council
Regency Business Centre
62/66Deansgate
Manchester M3 2EN
061-832 0639

Scottish Distributive Industries Training Council
Alpha Centre
University of Stirling FK9 4LA
0786 70080

Training Agency
Moorfoot
Sheffield S1 4PA
0742 704996

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a) to review and evaluate the range of existing further education curricula and programmes and to identify overlap, duplication, deficiencies and inconsistencies therein;
b) to determine priorities for action to improve the provision of further education and to make recommendations as to how such improvement can be effected;
c) to carry out studies in further education and to support investigations of and experimentation in, and the development of, further education curricula and to contribute to and assist in the evaluation of initiatives in further education;
d) to disseminate and publish information, and to assist in the dissemination and publication of information, about recommendations for and experiments and developments in further education.

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ISBN 1 85338 196 9

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RP422

Printed in England by J.E.C. Potter & Son Ltd, Stamford, Lincs.